

=> d his ful

(FILE 'HOME' ENTERED AT 09:57:04 ON 04 OCT 2006)

FILE 'HCAPLUS' ENTERED AT 09:57:27 ON 04 OCT 2006

E STORER R/AU
 L1 229 SEA ABB=ON PLU=ON STORER R?/AU
 E MOUSSA A/AU
 L2 278 SEA ABB=ON PLU=ON MOUSSA A?/AU
 E CHAUDHURI N/AU
 L3 413 SEA ABB=ON PLU=ON CHAUDHURI N?/AU
 E WALIGORA G/AU
 E WALIGORA F/AU
 L4 3 SEA ABB=ON PLU=ON WALIGORA F?/AU
 L5 1 SEA ABB=ON PLU=ON L1 AND L2 AND L3 AND L4
 D SCAN
 E US20050020825/PN
 L6 1 SEA ABB=ON PLU=ON US20050020825/PN
 L7 1 SEA ABB=ON PLU=ON L5 AND L6
 D ALL
 SEL RN

FILE 'REGISTRY' ENTERED AT 10:02:05 ON 04 OCT 2006

L8 25 SEA ABB=ON PLU=ON (10416-59-8/BI OR 13734-41-3/BI OR
 15397-15-6/BI OR 172722-75-7/BI OR 18162-48-6/BI OR
 20724-73-6/BI OR 23643-36-9/BI OR 31448-54-1/BI OR
 4637-24-5/BI OR 492-30-8/BI OR 57-48-7/BI OR 58479-61-1
 /BI OR 640725-69-5/BI OR 640725-70-8/BI OR 640725-71-9/
 BI OR 642075-42-1/BI OR 642075-43-2/BI OR 642075-44-3/B
 I OR 66-22-8/BI OR 701295-32-1/BI OR 71-30-7/BI OR
 72-18-4/BI OR 7392-74-7/BI OR 75-77-4/BI OR 999-97-3/BI
)
 D SCAN
 D L8 1-25 RN STR
 L9 1 SEA ABB=ON PLU=ON 492-30-8/RN
 D SCAN
 D CN
 L10 1 SEA ABB=ON PLU=ON 57-48-7/RN
 D SCAN
 L11 1 SEA ABB=ON PLU=ON 15397-15-6/RN
 D SCAN
 L12 STR
 L13 STR L12

FILE 'CASREACT' ENTERED AT 10:23:55 ON 04 OCT 2006

L14 STR L12
 L15 0 SEA SSS SAM L14 (0 REACTIONS)
 L16 0 SEA SSS SAM L13 (0 REACTIONS)
 L17 1 SEA SSS FUL L13 (2 REACTIONS)
 D SCAN
 SAV L17 KRI408/A
 D SAV
 D QUE STAT
 L18 STR L13
 L19 0 SEA SSS SAM L18 (0 REACTIONS)
 L20 3 SEA SSS FUL L18 (11 REACTIONS)
 D SCAN
 SAV L20 KRI408A/A
 D QUE STAT
 D 1-3

FILE 'REGISTRY' ENTERED AT 10:34:21 ON 04 OCT 2006
 D SCAN L9

FILE 'CASREACT' ENTERED AT 10:37:13 ON 04 OCT 2006

L21 STR

10/735,408

L22 0 SEA SSS SAM L21 (0 REACTIONS)
L23 1 SEA SSS FUL L21 (2 REACTIONS)
D SCAN
SAV L23 KRI408B/A

FILE 'REGISTRY' ENTERED AT 12:23:59 ON 04 OCT 2006
D SCAN L11

FILE 'CASREACT' ENTERED AT 12:24:00 ON 04 OCT 2006

FILE 'REGISTRY' ENTERED AT 12:25:23 ON 04 OCT 2006
D SCAN L8
D L8 1-25 RN STR

FILE 'CASREACT' ENTERED AT 13:00:19 ON 04 OCT 2006
L24 STR
L25 0 SEA SSS SAM L24 (0 REACTIONS)
L26 0 SEA SSS FUL L24 (0 REACTIONS)
L27 STR L24
L28 0 SEA SSS SAM L27 (0 REACTIONS)
D COST
L29 0 SEA SSS FUL L27 (0 REACTIONS)
D COST
D QUE STAT L17
D QUE STAT L20
D QUE STAT L23
L30 3 SEA ABB=ON PLU=ON L17 OR L20 OR L23 OR L26 OR L29
D SCAN
D QUE STAT

FILE 'REGISTRY' ENTERED AT 13:29:28 ON 04 OCT 2006
E HNATE/MF
L31 2 SEA ABB=ON PLU=ON HNATE/MF
D SCAN
E I2SM/MF
L32 2 SEA ABB=ON PLU=ON I2SM/MF
D SCAN
D L31 1-2 RN
D L31 1-2 RN STR
L33 1 SEA ABB=ON PLU=ON 65312-92-7/RN
D SCAN
D L32 1-2 RN STR
L34 1 SEA ABB=ON PLU=ON 32248-43-4/RN
L35 1 SEA ABB=ON PLU=ON 223258-89-7/RN
E H2/MF
L36 19 SEA ABB=ON PLU=ON H2/MF
D SCAN
D L36 1-19 RN STR
L37 1 SEA ABB=ON PLU=ON 1333-74-0/RN
D SCAN
E ALC12H28LIO3/MF
E C12H28ALLIO3/MF
E C12H28ALO3.LI/MF
L38 6 SEA ABB=ON PLU=ON C12H28ALO3.LI/MF
D SCAN
D L38 RN STR
D L38 1-6 RN STR
L39 1 SEA ABB=ON PLU=ON 17326-58-8/RN
E CARBON DIOXIDE/CN
L40 1 SEA ABB=ON PLU=ON CARBON DIOXIDE/CN
D RN
L41 1 SEA ABB=ON PLU=ON 124-38-9/RN
E OXALIC ACID/CN
L42 1 SEA ABB=ON PLU=ON OXALIC ACID/CN
D RN
L43 1 SEA ABB=ON PLU=ON 144-62-7/RN
E 7392-74-7/RN

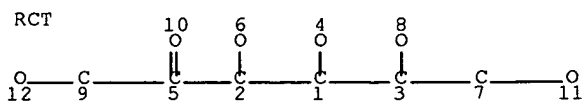
10/735,408

L44 1 SEA ABB=ON PLU=ON 7392-74-7/RN
D SCAN
E 172722-75-7/RN
L45 1 SEA ABB=ON PLU=ON 172722-75-7/RN
D SCAN

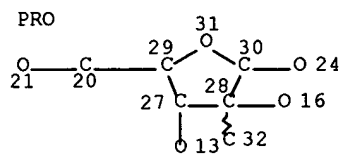
FILE 'HCAPLUS' ENTERED AT 13:51:42 ON 04 OCT 2006

D SCAN L7
L46 63046 SEA ABB=ON PLU=ON L9 OR FRUCTOSE
L47 1664 SEA ABB=ON PLU=ON L10/P
L48 6 SEA ABB=ON PLU=ON L11/P
L49 7 SEA ABB=ON PLU=ON L44/P
L50 2 SEA ABB=ON PLU=ON L45/P
L51 1674 SEA ABB=ON PLU=ON (L47 OR L48 OR L49 OR L50)
L52 1580 SEA ABB=ON PLU=ON L51 AND L46
L53 11 SEA ABB=ON PLU=ON L9/RCT
L54 26 SEA ABB=ON PLU=ON (L9 OR FRUCTOSE/RCT)
D SCAN
L55 4 SEA ABB=ON PLU=ON L53 AND L51
D SCAN
L56 151 SEA ABB=ON PLU=ON L33
L57 1242 SEA ABB=ON PLU=ON L34
L58 1 SEA ABB=ON PLU=ON L35
L59 317085 SEA ABB=ON PLU=ON L37
L60 9 SEA ABB=ON PLU=ON L39
L61 318481 SEA ABB=ON PLU=ON (L56 OR L57 OR L58 OR L59 OR L60)
L62 0 SEA ABB=ON PLU=ON L61 AND L55
L63 11 SEA ABB=ON PLU=ON L61 AND L51
D SCAN
D QUE L54
L64 5 SEA ABB=ON PLU=ON L54 AND L51
D SCAN
L65 16 SEA ABB=ON PLU=ON L55 OR (L63 OR L64)
L66 11 SEA ABB=ON PLU=ON L65 AND L61
L67 11600 SEA ABB=ON PLU=ON L61(L)REDUC?
L68 0 SEA ABB=ON PLU=ON L67 AND L65 AND L67
D QUE
D SCAN L66
D QUE L66
D SCAN L66 TI
L69 QUE ABB=ON PLU=ON PRODUC? OR PROD# OR GENERAT? OR
MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR
FORMAT? OR MAKE# OR MADE# OR MAKIN# OR FABRICAT? OR
SYNTHESI? OR PREPAR? OR PREP#
L70 16 SEA ABB=ON PLU=ON (L63 OR L64 OR L65 OR L66)
L71 16 SEA ABB=ON PLU=ON L70 AND L69
L72 16 SEA ABB=ON PLU=ON L66 OR L71
L73 26 SEA ABB=ON PLU=ON L9
L74 32087 SEA ABB=ON PLU=ON L10
L75 16 SEA ABB=ON PLU=ON L11
L76 8 SEA ABB=ON PLU=ON L44
L77 3 SEA ABB=ON PLU=ON L45
L78 32107 SEA ABB=ON PLU=ON (L74 OR L75 OR L76 OR L77)
L79 19354 SEA ABB=ON PLU=ON L78 AND L69
L80 7480 SEA ABB=ON PLU=ON L78(L)L69
L81 5 SEA ABB=ON PLU=ON L80 AND L73
D SCAN
L82 17 SEA ABB=ON PLU=ON L81 OR L72

=> => d que stat 130
L13 STR



Page 1-A



Page 2-A

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

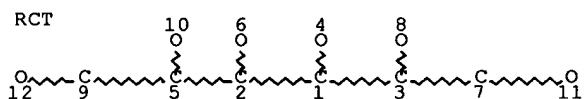
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 23

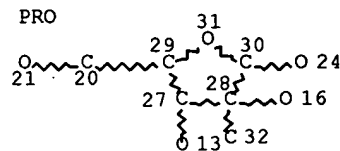
STEREO ATTRIBUTES: NONE

L17 1 SEA FILE=CASREACT SSS FUL L13 (2 REACTIONS)

L18 STR



Page 1-A



Page 2-A

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 4

CONNECT IS E1 RC AT 6

CONNECT IS E1 RC AT 8

CONNECT IS E1 RC AT 10

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

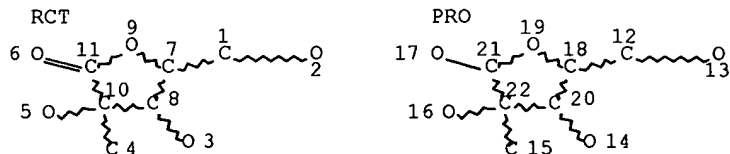
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

10/735,408

L20 3 SEA FILE=CASREACT SSS FUL L18 (11 REACTIONS)
L21 STR



NODE ATTRIBUTES:

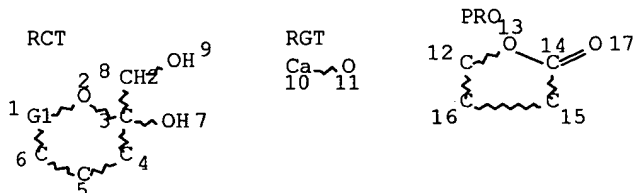
CONNECT IS E1 RC AT 6
CONNECT IS E1 RC AT 17
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L23 1 SEA FILE=CASREACT SSS FUL L21 (2 REACTIONS)
L24 STR



REP G1=(0-5) C

NODE ATTRIBUTES:

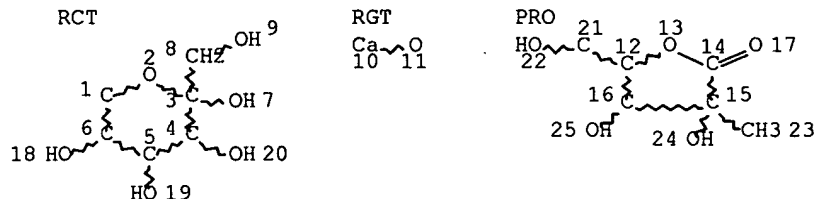
CONNECT IS E1 RC AT 17
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L26 0 SEA FILE=CASREACT SSS FUL L24 (0 REACTIONS)
L27 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 17
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE

L29 0 SEA FILE=CASREACT SSS FUL L27 (0 REACTIONS)
L30 3 SEA FILE=CASREACT ABB=ON PLU=ON L17 OR L20 OR L23 OR
L26 OR L29

=> d l30 1-3 iall hit

L30 ANSWER 1 OF 3 CASREACT COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 143:306461 CASREACT Full-text
TITLE: Kiliani reactions on ketoses: branched
carbohydrate building blocks from D-tagatose
and D-psicose
AUTHOR(S): Soengas, Raquel; Izumori, Ken; Simone, Michela
Iezzi; Watkin, David J.; Skytte, Ulla P.;
Soetaert, Wim; Fleet, George W. J.
CORPORATE SOURCE: Department of Chemistry, Chemistry Research
Laboratory, University of Oxford, Oxford, OX1
3TA, UK
SOURCE: Tetrahedron Letters (2005), 46(34), 5755-5759
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
CLASSIFICATION: 33-2 (Carbohydrates)
ABSTRACT:
D-Tagatose and D-psicose on treatment with sodium cyanide gave mixts.
of branched sugar lactones; extraction of the crude products by acetone in
the presence of acid permits direct access to branched carbohydrate
diacetoneides, likely to be of value as new chiroins. In both cases, the
major lactone products-diacetoneides with a 2,3-cis-diol
relationship-can be crystallized in around 40-50% yield from the
keto-hexose. A practical procedure for the conversion of 30 g of
D-tagatose to give 24 g of 2,3:5,6-di-O-isopropylidene-2-C-
hydroxymethyl-D-talono-1,4-lactone is reported.

SUPPL. TERM: lactonization Kiliani ketose synthon tagatose
psicose hydroxymethyltalono-lactone prepn; Kiliani
ketose synthon tagatose psicose lactone chiron
hydroxymethyltalono-lactone prepn
INDEX TERM: Synthons
(Kiliani lactonization reaction on ketoses and
branched carbohydrate building blocks from
D-tagatose and D-psicose)
INDEX TERM: Lactones
ROLE: RCT (Reactant); SPN (Synthetic preparation);
PREP (Preparation); RACT (Reactant or reagent)
(Kiliani lactonization reaction on ketoses and
branched carbohydrate building blocks from
D-tagatose and D-psicose)
INDEX TERM: Lactonization
(Kiliani; Kiliani lactonization reaction on
ketoses and branched carbohydrate building blocks
from D-tagatose and D-psicose)
INDEX TERM: Monosaccharides
ROLE: RCT (Reactant); SPN (Synthetic preparation);
PREP (Preparation); RACT (Reactant or reagent)
(ketoses; Kiliani lactonization reaction on
ketoses and branched carbohydrate building blocks
from D-tagatose and D-psicose)
INDEX TERM: 87-81-0, D-Tagatose 551-68-8, D-Psicose

ROLE: RCT (Reactant); RACT (Reactant or reagent)
 (Kiliani lactonization reaction on ketoses and
 branched carbohydrate building blocks from
 D-tagatose and D-psicose)

INDEX TERM: 864846-22-0P 864846-23-1P 864846-24-2P
 871706-99-9P

ROLE: RCT (Reactant); SPN (Synthetic preparation);
 PREP (Preparation); RACT (Reactant or reagent)
 (Kiliani lactonization reaction on ketoses and
 branched carbohydrate building blocks from
 D-tagatose and D-psicose)

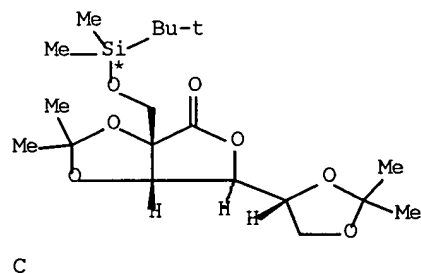
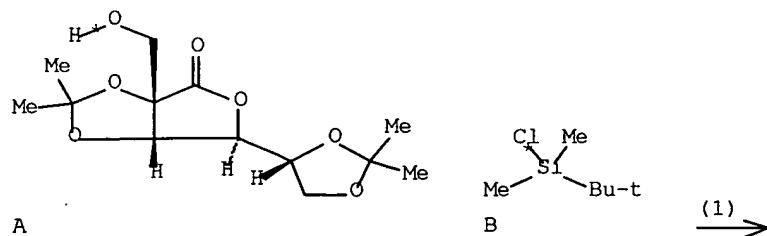
INDEX TERM: 851984-30-0P 864846-17-3P 864846-18-4P
 864846-19-5P 864846-20-8P 864846-21-9P
 864846-25-3P

ROLE: SPN (Synthetic preparation); PREP
 (Preparation)
 (Kiliani lactonization reaction on ketoses and
 branched carbohydrate building blocks from
 D-tagatose and D-psicose)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR
 THIS RECORD.

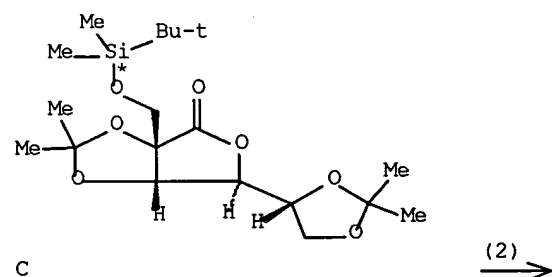
- REFERENCE(S):
- (1) Beadle, J; US 5078796 1992 CAPLUS
 - (2) Bols, M; Carbohydrate Building Blocks 1996
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 - (8) Hudson, C; Adv Carbohydr Chem 1945, V1, P2
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 - (11) Itoh, H; J Ferment Bioeng 1995, V79, P184
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 - (21) Skytte, U; Cereal Foods World 2002, V47, P224
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CAPLUS
 - (23) Woods, R; Can J Chem 1953, V31, P471 CAPLUS
 - (24) Woods, R; Can J Chem 1954, V32, P404 CAPLUS

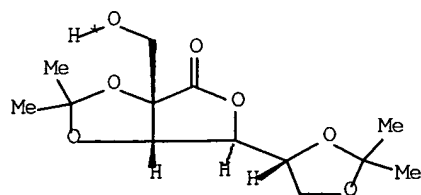
RX(1) OF 18 ...A + B ==> C



RX(1) RCT A 864846-17-3, B 18162-48-6
 RGT D 288-32-4 1H-Imidazole
 PRO C 864846-22-0
 SOL 68-12-2 DMF
 CON 4 hours, -20 deg C
 NTE additional reactant isomer also present

RX(2) OF 18 C ==> A...

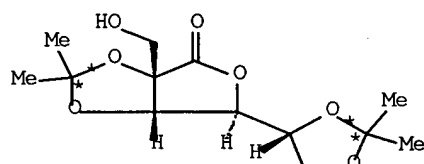




A

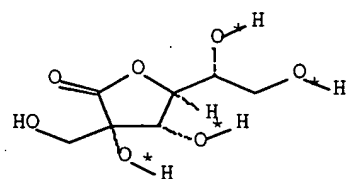
RX(2) RCT C 864846-22-0
 RGT F 429-41-4 Bu4N.F
 PRO A 864846-17-3
 SOL 109-99-9 THF

RX(3) OF 18 ...A ==> H



A

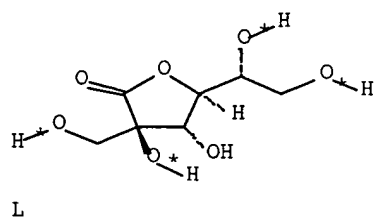
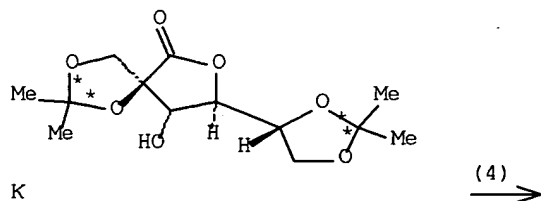
(3) →



H

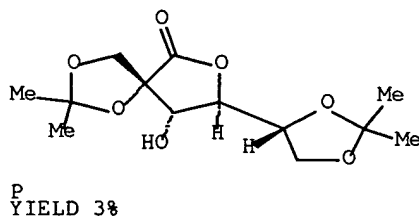
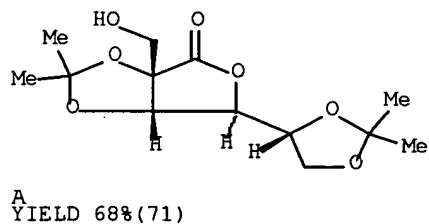
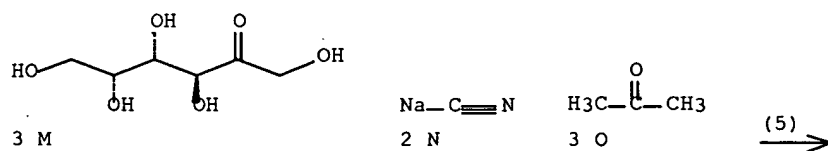
RX(3) RCT A 864846-17-3
 RGT I 76-05-1 F3CCO2H
 PRO H 864846-20-8
 SOL 7732-18-5 Water

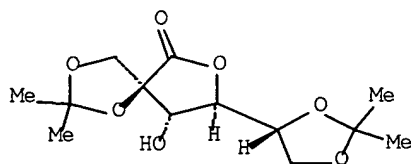
RX(4) OF 18 ...K ==> L



RX(4) RCT K 851984-30-0
 RGT I 76-05-1 F3CCO2H
 PRO L 864846-21-9
 SOL 7732-18-5 Water

RX(5) OF 18 3 M + 2 N + 3 O \implies A + P + K...





K
YIELD 68% (29)

RX(5) RCT M 87-81-0, N 143-33-9

STAGE(1)

SOL 7732-18-5 Water

CON SUBSTAGE(1) 24 hours, reflux

SUBSTAGE(2) reflux -> room temperature

STAGE(2)

RGT Q 9002-23-7 Amberlite IR20

SOL 7732-18-5 Water

CON room temperature

STAGE(3)

RCT O 67-64-1

RGT R 7664-93-9 H₂SO₄, S 7758-98-7 CuSO₄

SOL 7732-18-5 Water

CON 6 hours, room temperature

STAGE(4)

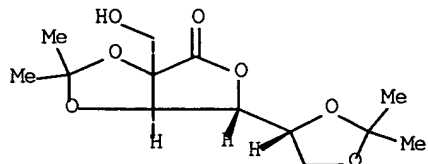
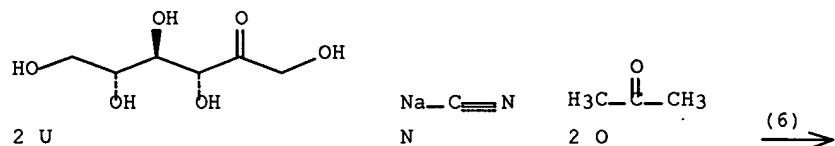
RGT T 497-19-8 Na₂CO₃

CON room temperature, neutralized

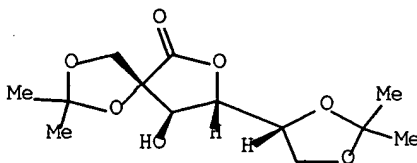
PRO A 864846-17-3, P 871706-99-9, K 851984-30-0

NTE stereoselective

RX(6) OF 18 2 U + N + 2 O ==> V + W...



V
YIELD 56%



W
YIELD 28%

RX(6) RCT U 551-68-8, N 143-33-9

STAGE(1)

SOL 7732-18-5 Water

CON SUBSTAGE(1) 24 hours, reflux

SUBSTAGE(2) reflux -> room temperature

STAGE(2)

RGT Q 9002-23-7 Amberlite IR20

SOL 7732-18-5 Water

CON room temperature

STAGE(3)

RCT O 67-64-1

RGT R 7664-93-9 H₂SO₄, S 7758-98-7 CuSO₄

SOL 7732-18-5 Water

CON 6 hours, room temperature

STAGE(4)

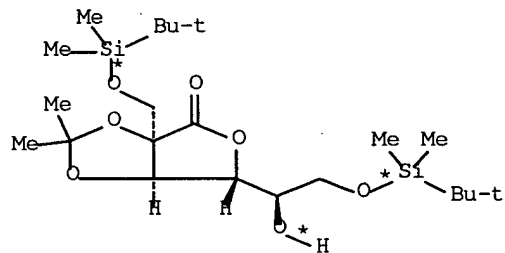
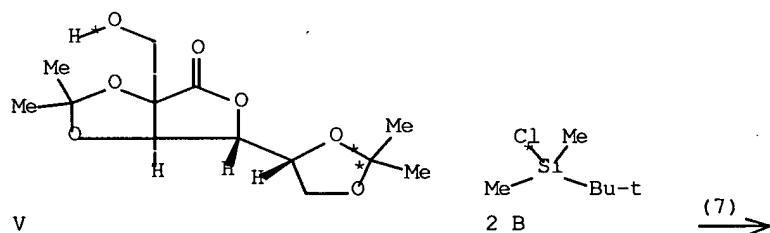
RGT T 497-19-8 Na₂CO₃

CON room temperature, neutralized

PRO V 864846-18-4, W 864846-19-5

NTE stereoselective

RX(7) OF 18 ...V + 2 B ==> X



YIELD 71%

RX(7) RCT V 864846-18-4

STAGE(1)

RGT Y 64-19-7 AcOH

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SOL 7732-18-5 Water

STAGE (2)

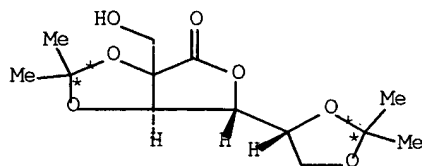
RCT B 18162-48-6

RGT D 288-32-4 1H-Imidazole

SOL 68-12-2 DMF

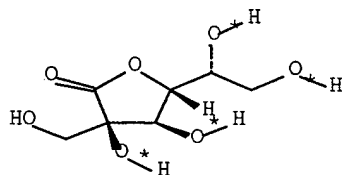
PRO X 864846-25-3

RX(8) OF 18 ...V ==> Z



V

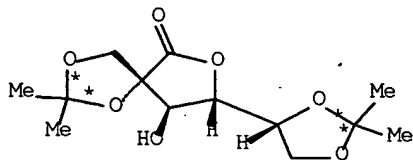
(8) →



Z

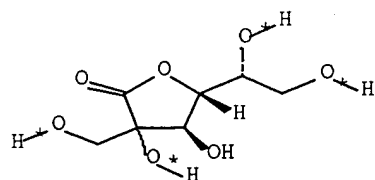
RX(8) RCT V 864846-18-4
RGT I 76-05-1 F3CCO2H
PRO Z 864846-23-1
SOL 7732-18-5 Water

RX(9) OF 18 ...W ==> AA



W

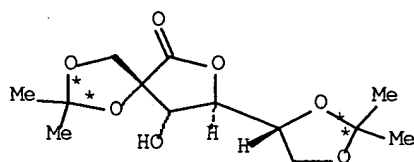
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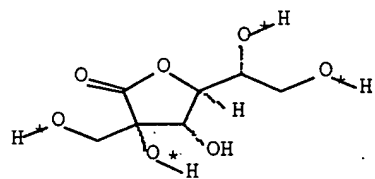
AA

RX(9) RCT W 864846-19-5
 RGT I 76-05-1 F3CCO2H
 PRO AA 864846-24-2
 SOL 7732-18-5 Water

RX(10) OF 18 ...P ==> H



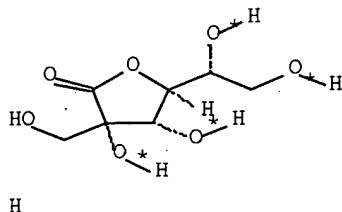
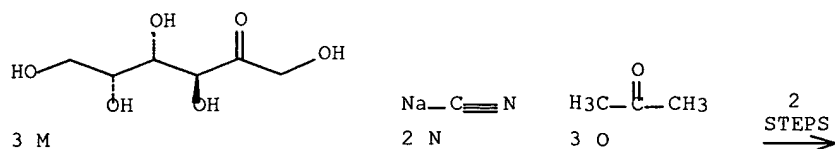
P

(10)
→

H

RX(10) RCT P 871706-99-9
 RGT I 76-05-1 F3CCO2H
 PRO H 864846-20-8
 SOL 7732-18-5 Water

RX(13) OF 18 COMPOSED OF RX(5), RX(3)
 RX(13) 3 M + 2 N + 3 O ==> H



RX(5) RCT M 87-81-0, N 143-33-9

STAGE(1)

SOL 7732-18-5 Water

CON SUBSTAGE(1) 24 hours, reflux

 SUBSTAGE(2) reflux -> room temperature

STAGE(2)

RGT Q 9002-23-7 Amberlite IR20

SOL 7732-18-5 Water

CON room temperature

STAGE(3)

RCT O 67-64-1

RGT R 7664-93-9 H₂SO₄, S 7758-98-7 CuSO₄

SOL 7732-18-5 Water

CON 6 hours, room temperature

STAGE(4)

RGT T 497-19-8 Na₂CO₃

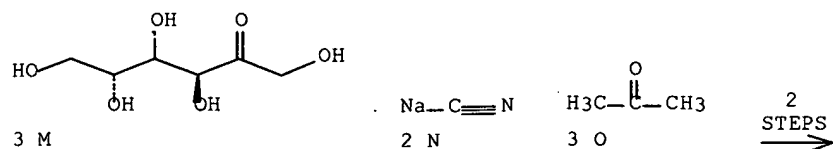
CON room temperature, neutralized

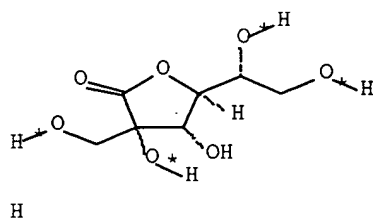
PRO A 864846-17-3, P 871706-99-9, K 851984-30-0

NTE stereoselective

RX(3) RCT A 864846-17-3
 RGT I 76-05-1 F₃CCO₂H
 PRO H 864846-20-8
 SOL 7732-18-5 Water

RX(14) OF 18 COMPOSED OF RX(5), RX(10)
 RX(14) 3 M + 2 N + 3 O ==> H





RX(5) RCT M 87-81-0, N 143-33-9

STAGE(1)

SOL 7732-18-5 Water

CON SUBSTAGE(1) 24 hours, reflux

SUBSTAGE(2) reflux -> room temperature

STAGE(2)

RGT Q 9002-23-7 Amberlite IR20

SOL 7732-18-5 Water

CON room temperature

STAGE(3)

RCT O 67-64-1

RGT R 7664-93-9 H₂SO₄, S 7758-98-7 CuSO₄

SOL 7732-18-5 Water

CON 6 hours, room temperature

STAGE(4)

RGT T 497-19-8 Na₂CO₃

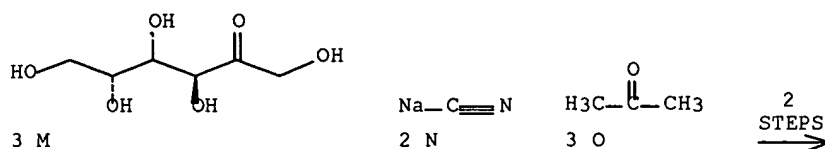
CON room temperature, neutralized

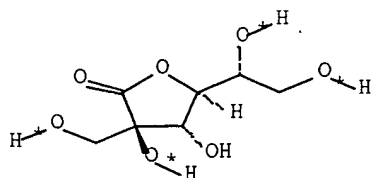
PRO A 864846-17-3, P 871706-99-9, K 851984-30-0

NTE stereoselective

RX(10) RCT P 871706-99-9
 RGT I 76-05-1 F₃CCO₂H
 PRO H 864846-20-8
 SOL 7732-18-5 Water

RX(15) OF 18 COMPOSED OF RX(5), RX(4)
 RX(15) 3 M + 2 N + 3 O ==> L





L

RX(5) RCT M 87-81-0, N 143-33-9

STAGE(1)

SOL 7732-18-5 Water

CON SUBSTAGE(1) 24 hours, reflux

SUBSTAGE(2) reflux -> room temperature

STAGE(2)

RGT Q 9002-23-7 Amberlite IR20

SOL 7732-18-5 Water

CON room temperature

STAGE(3)

RCT O 67-64-1

RGT R 7664-93-9 H₂SO₄, S 7758-98-7 CuSO₄

SOL 7732-18-5 Water

CON 6 hours, room temperature

STAGE(4)

RGT T 497-19-8 Na₂CO₃

CON room temperature, neutralized

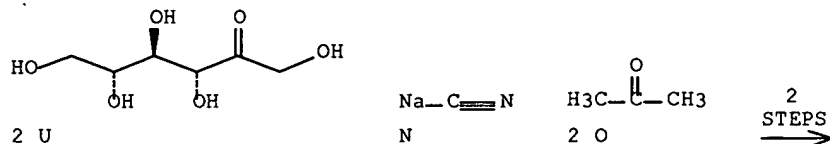
PRO A 864846-17-3, P 871706-99-9, K 851984-30-0

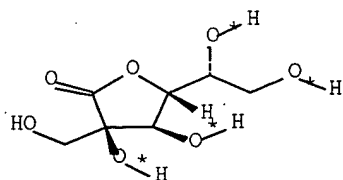
NTE stereoselective

RX(4) RCT K 851984-30-0
 RGT I 76-05-1 F₃CCO₂H
 PRO L 864846-21-9
 SOL 7732-18-5 Water

RX(17) OF 18 COMPOSED OF RX(6), RX(8)

RX(17) 2 U + N + 2 O ==> Z





Z

RX(6) RCT U 551-68-8, N 143-33-9

STAGE(1)

SOL 7732-18-5 Water

CON SUBSTAGE(1) 24 hours, reflux

SUBSTAGE(2) reflux -> room temperature

STAGE(2)

RGT Q 9002-23-7 Amberlite IR20

SOL 7732-18-5 Water

CON room temperature

STAGE(3)

RCT O 67-64-1

RGT R 7664-93-9 H₂SO₄, S 7758-98-7 CuSO₄

SOL 7732-18-5 Water

CON 6 hours, room temperature

STAGE(4)

RGT T 497-19-8 Na₂CO₃

CON room temperature, neutralized

PRO V 864846-18-4, W 864846-19-5

NTE stereoselective

RX(8)

RCT V 864846-18-4

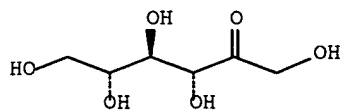
RGT I 76-05-1 F₃CCO₂H

PRO Z 864846-23-1

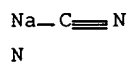
SOL 7732-18-5 Water

RX(18) OF 18 COMPOSED OF RX(6), RX(9)

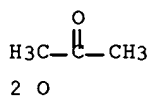
RX(18) 2 U + N + 2 O ==> AA



2 U

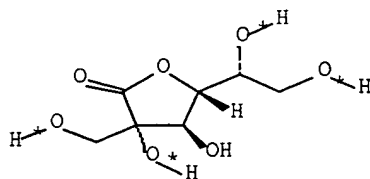


N



2 O

2
STEPS
→



AA

RX(6) RCT U 551-68-8, N 143-33-9

STAGE(1)

SOL 7732-18-5 Water

CON SUBSTAGE(1) 24 hours, reflux

SUBSTAGE(2) reflux -> room temperature

STAGE(2)

RGT Q 9002-23-7 Amberlite IR20

SOL 7732-18-5 Water

CON room temperature

STAGE(3)

RCT O 67-64-1

RGT R 7664-93-9 H₂SO₄, S 7758-98-7 CuSO₄

SOL 7732-18-5 Water

CON 6 hours, room temperature

STAGE(4)

RGT T 497-19-8 Na₂CO₃

CON room temperature, neutralized

PRO V 864846-18-4, W 864846-19-5

NTE stereoselective

RX(9)

RCT W 864846-19-5

RGT I 76-05-1 F₃CCO₂H

PRO AA 864846-24-2

SOL 7732-18-5 Water

L30 ANSWER 2 OF 3 CASREACT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 142:134821 CASREACT Full-text

TITLE: Kiliani on ketoses: branched carbohydrate building blocks from L-fructose and L-sorbose

AUTHOR(S): Hotchkiss, David; Soengas, Raquel; Simone, Michela Iezzi; van Ameijde, Jeroen; Hunter, Stuart; Cowley, Andrew R.; Fleet, George W. J.

CORPORATE SOURCE: Chemistry Research Laboratory, Department of Chemistry, University of Oxford, Oxford, OX1 3TA, UK

SOURCE: Tetrahedron Letters (2004), 45(51), 9461-9464
CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

CLASSIFICATION: 33-8 (Carbohydrates)

ABSTRACT:

Protected branched sugar lactones are available via Kiliani-acetonation sequences on readily available ketoses such as D-fructose and L-sorbose. In both cases, the readily crystallized diacetonides have a 2,3-cis-diol relationship in the product lactone. An efficient double inversion of the configuration at C-4 and C-5 of the product from

D-fructose gives access to the formal Kiliani product from L-psicose. Branched carbohydrate lactones are likely to be of significant value as chiroins for homochiral targets with functionalized quaternary centers.

SUPPL. TERM: branched glycoside lactone synthon prepn; ketose
Kiliani acetonation branched glycoside lactone prepn

INDEX TERM: Synthons
(chiral; preparation of branched glycoside lactone
synthons via Kiliani-acetonation sequence on
ketoses)

INDEX TERM: Lactones
ROLE: SPN (Synthetic preparation); PREP
(Preparation)
(glycosides; preparation of branched glycoside lactone
synthons via Kiliani-acetonation sequence on
ketoses)

INDEX TERM: Monosaccharides
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(ketoses; preparation of branched glycoside lactone
synthons via Kiliani-acetonation sequence on
ketoses)

INDEX TERM: Glycosides
ROLE: SPN (Synthetic preparation); PREP
(Preparation)
(lactones; preparation of branched glycoside lactone
synthons via Kiliani-acetonation sequence on
ketoses)

INDEX TERM: Configuration
Cyclization
(preparation of branched glycoside lactone synthons
via Kiliani-acetonation sequence on ketoses)

INDEX TERM: 827046-33-3P 827046-35-5P
ROLE: BYP (Byproduct); RCT (Reactant); PREP
(Preparation); RACT (Reactant or reagent)
(preparation of branched glycoside lactone synthons
via Kiliani-acetonation sequence on ketoses)

INDEX TERM: 57-48-7, D-Fructose, reactions 87-79-6, L-Sorbose
7306-64-1 40036-82-6
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(preparation of branched glycoside lactone synthons
via Kiliani-acetonation sequence on ketoses)

INDEX TERM: 70147-46-5P 70147-48-7P 137126-23-9P
211623-21-1P 827046-36-6P 827046-37-7P
827046-38-8P 827046-39-9P 827046-41-3P
ROLE: RCT (Reactant); SPN (Synthetic preparation);
PREP (Preparation); RACT (Reactant or reagent)
(preparation of branched glycoside lactone synthons
via Kiliani-acetonation sequence on ketoses)

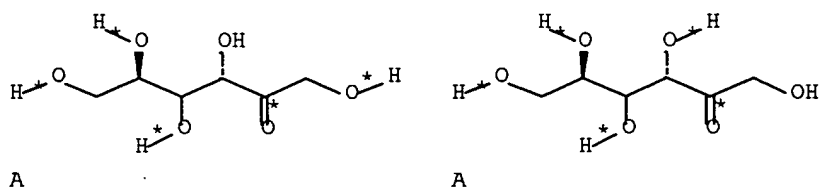
INDEX TERM: 64487-91-8P 827046-32-2P 827046-34-4P
827046-40-2P
ROLE: SPN (Synthetic preparation); PREP
(Preparation)
(preparation of branched glycoside lactone synthons
via Kiliani-acetonation sequence on ketoses)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR
THIS RECORD.

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(2) Beacham, A; Tetrahedron:Asymmetry 1991, V2, P883
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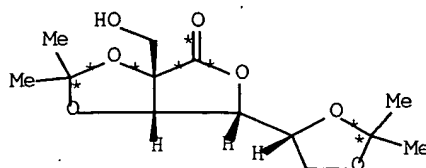
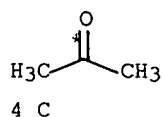
- (8) Fleet, G; Tetrahedron 1989, V45, P319 CAPLUS
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- (34) Woods, R; Can J Chem 1953, V31, P471 CAPLUS
- (35) Woods, R; Can J Chem 1954, V32, P404 CAPLUS

RX(1) OF 35 2 A + 2 B + 4 C ==> D + E...

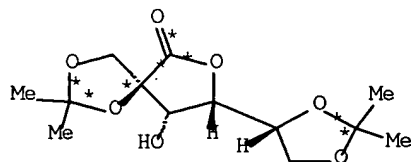


Na+ C≡N

2 B



D
YIELD 51%



E
YIELD 9%

RX(1) RCT A 57-48-7, B 143-33-9

STAGE(1)

SOL 7732-18-5 Water

CON SUBSTAGE(1) 24 hours, room temperature

SUBSTAGE(2) 12 hours, reflux

SUBSTAGE(3) reflux -> room temperature

STAGE(2)

RGT F 9002-23-7 Amberlite IR20

STAGE(3)

RCT C 67-64-1

RGT G 7664-93-9 H₂SO₄

SOL 7732-18-5 Water, 7758-98-7 CuSO₄

CON 6 hours, room temperature

STAGE(4)

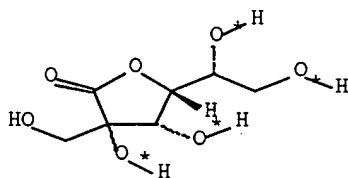
RGT H 497-19-8 Na₂CO₃

CON room temperature, neutralized

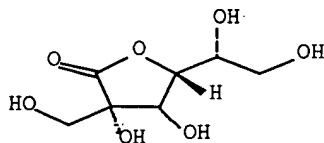
PRO D 70147-48-7, E 827046-33-3

NTE stereoselective

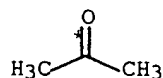
RX(2) OF 35 2 K + 2 C ==> D + L...



K

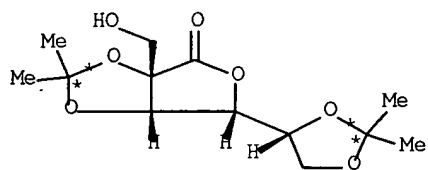


K

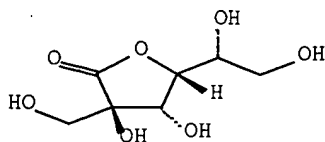


2 C

(2) →



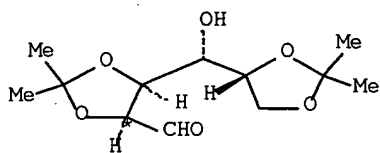
D



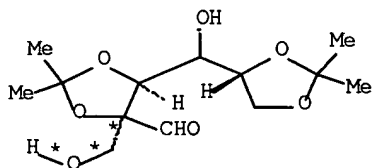
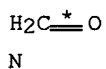
L

RX(2) RCT K 211623-21-1, C 67-64-1
 RGT G 7664-93-9 H2SO4, J 7758-98-7 CuSO4
 PRO D 70147-48-7, L 827046-35-5
 SOL 67-64-1 Me2CO
 CON 6 hours, room temperature

RX(3) OF 35 M + N ==> O...



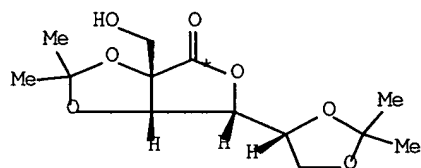
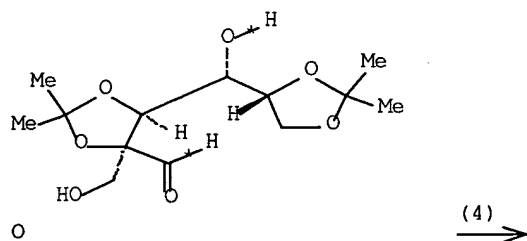
M



O
 YIELD 52%

RX(3) RCT M 40036-82-6, N 50-00-0
 RGT P 584-08-7 K2CO3
 PRO O 70147-46-5
 SOL 7732-18-5 Water
 NTE stereoselective

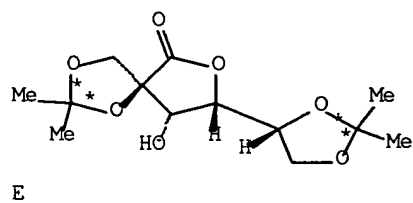
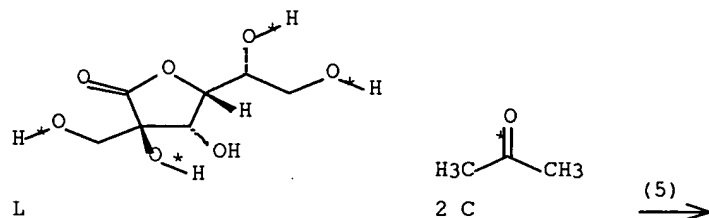
RX(4) OF 35 ...O ==> D...



D
YIELD 86%

RX(4) RCT O 70147-46-5
 RGT Q 513-77-9 BaCO₃, R 7726-95-6 Br₂
 PRO D 70147-48-7
 SOL 7732-18-5 Water

RX(5) OF 35 ...L + 2 C ==> E...



RX(5) RCT L 827046-35-5, C 67-64-1

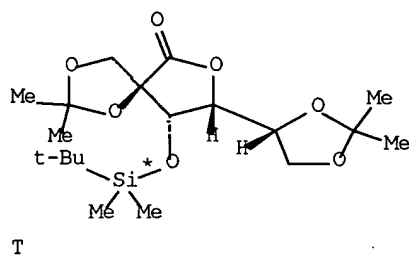
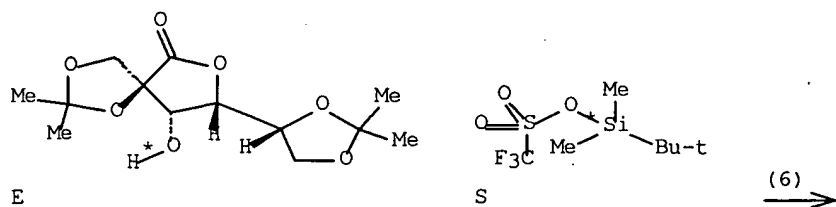
10/735,408

RGT G 7664-93-9 H2SO4, J 7758-98-7 CuSO4

PRO E 827046-33-3

SOL 67-64-1 Me2CO

RX(6) OF 35 ...E + S ==> T



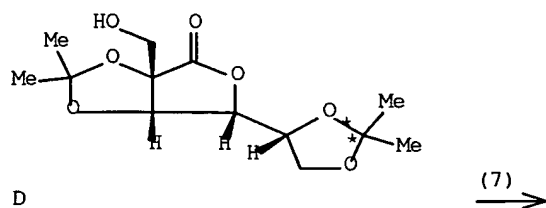
RX(6) RCT E 827046-33-3, S 69739-34-0

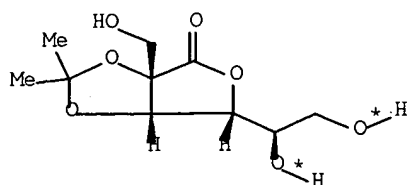
RGT U 108-48-5 2,6-Lutidine

PRO T 827046-34-4

SOL 75-09-2 CH2Cl2

RX(7) OF 35 ...D ==> W...

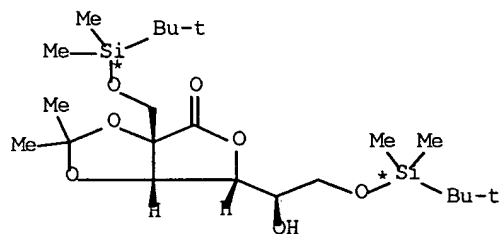
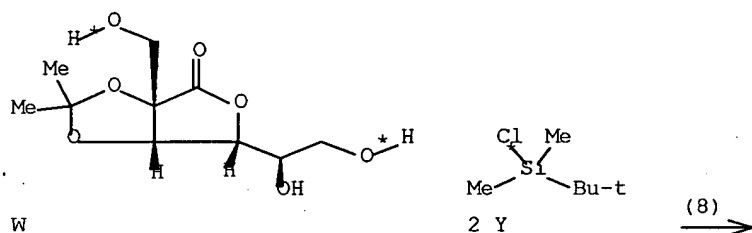




W
YIELD 100%

RX(7) RCT D 70147-48-7
 RGT X 64-19-7 AcOH
 PRO W 827046-36-6
 SOL 7732-18-5 Water
 CON room temperature

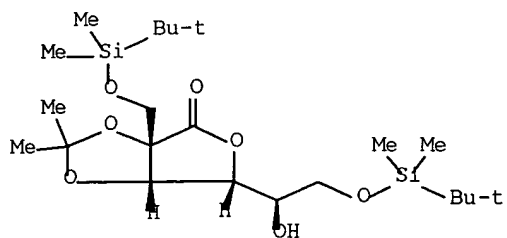
RX(8) OF 35 ...W + 2 Y ==> Z...



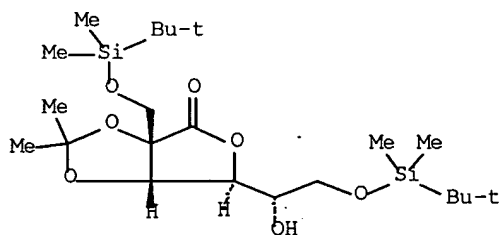
Z
YIELD 73%

RX(8) RCT W 827046-36-6, Y 18162-48-6
 RGT AA 110-86-1 Pyridine
 PRO Z 827046-37-7
 SOL 68-12-2 DMF
 NTE regioselective

RX(9) OF 35 ...Z ==> AC



Z

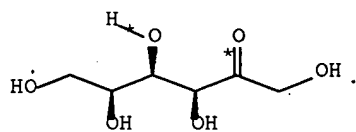
(9) \longrightarrow AC
YIELD 58%

RX(9) RCT Z 827046-37-7

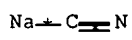
STAGE(1)

RGT AA 110-86-1 Pyridine, AD 358-23-6 (F3CSO₂)₂O
SOL 75-09-2 CH₂Cl₂

STAGE(2)

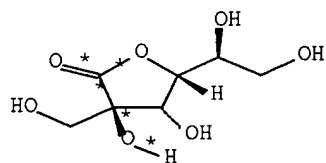
RGT AE 1310-58-3 KOH
SOL 7732-18-5 Water, 123-91-1 DioxanePRO AC 827046-32-2
NTE stereoselectiveRX(10) OF 35 2 AG + 2 B \implies AH + AI

2 AG

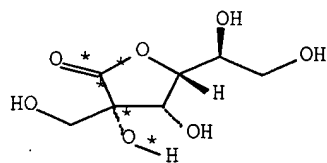


2 B

(10) \longrightarrow



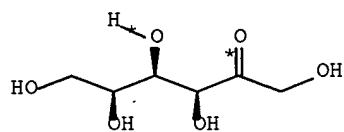
AH



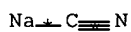
AI

RX(10) RCT AG 87-79-6, B 143-33-9
 PRO AH 827046-38-8, AI 827046-39-9
 SOL 7732-18-5 Water
 CON SUBSTAGE(1) 24 hours, room temperature
 SUBSTAGE(2) 12 hours, reflux
 SUBSTAGE(3) reflux -> room temperature

RX(11) OF 35 2 AG + 2 B ==> AH + AI



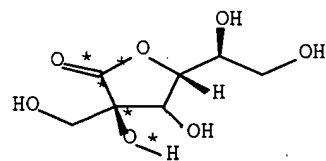
2 AG



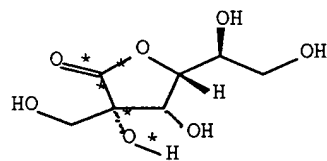
2 B



(11)

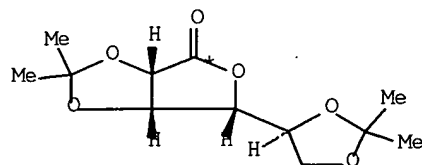


AH

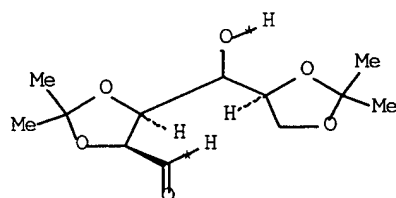
AI
YIELD 17%

RX(11) RCT AG 87-79-6, B 143-33-9
 STAGE(1)
 SOL 7732-18-5 Water
 CON SUBSTAGE(1) 24 hours, room temperature
 SUBSTAGE(2) 12 hours, reflux
 SUBSTAGE(3) reflux -> room temperature
 STAGE(2)
 RGT Q 513-77-9 BaCO₃, R 7726-95-6 Br₂
 SOL 7732-18-5 Water
 PRO AH 827046-38-8, AI 827046-39-9

RX(12) OF 35 AJ ==> AK



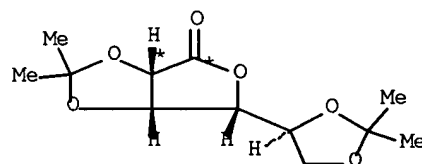
AJ

(12) \longrightarrow 

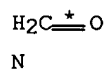
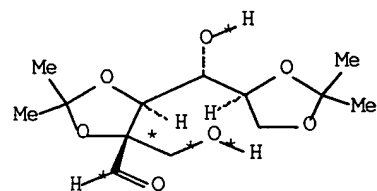
AK

RX(12) RCT AJ 7306-64-1
 RGT AL 1191-15-7 AlH(Bu-i)₂
 PRO AK 137126-23-9
 SOL 109-99-9 THF
 NTE stereoselective

RX(13) OF 35 AJ + N \implies AN...



AJ

(13) \longrightarrow 

AN
YIELD 70%

RX(13) RCT AJ 7306-64-1

STAGE(1)

RGT AL 1191-15-7 $\text{AlH}(\text{Bu-i})_2$

SOL 109-99-9 THF

STAGE(2)

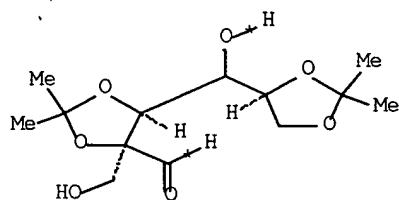
RCT N 50-00-0

RGT P 584-08-7 K_2CO_3

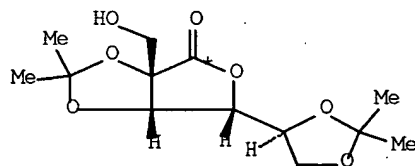
SOL 7732-18-5 Water

PRO AN 827046-41-3

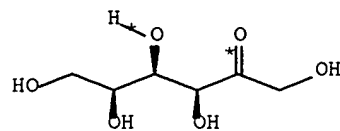
NTE stereoselective

RX(14) OF 35 ...AN \implies AO

AN

(14)
 \longrightarrow AO
YIELD 96%

RX(14) RCT AN 827046-41-3
 RGT Q 513-77-9 BaCO_3 , R 7726-95-6 Br_2
 PRO AO 64487-91-8
 SOL 7732-18-5 Water, 123-91-1 Dioxane

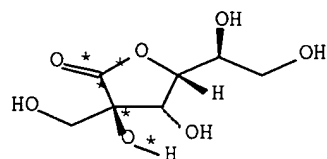
RX(10) OF 35 2 AG + 2 B \implies AH + AI

2 AG

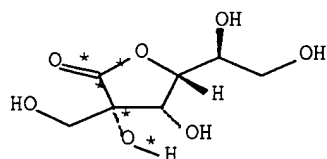


2 B

(10)
 \longrightarrow



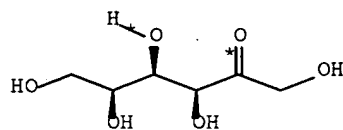
AH



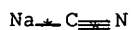
AI

RX(10) RCT AG 87-79-6, B 143-33-9
 PRO AH 827046-38-8, AI 827046-39-9
 SOL 7732-18-5 Water
 CON SUBSTAGE(1) 24 hours, room temperature
 SUBSTAGE(2) 12 hours, reflux
 SUBSTAGE(3) reflux -> room temperature

RX(11) OF 35 2 AG + 2 B ==> AH + AI

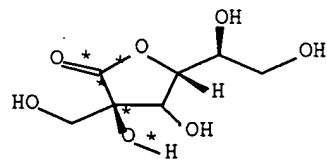


2 AG

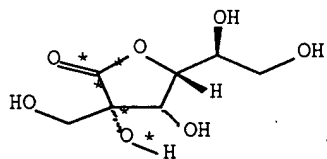


2 B

(11) →



AH

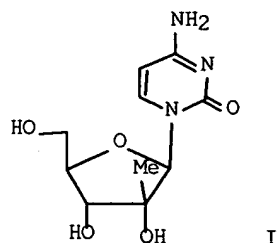
AI
YIELD 17%

RX(11) RCT AG 87-79-6, B 143-33-9
 STAGE(1)
 SOL 7732-18-5 Water
 CON SUBSTAGE(1) 24 hours, room temperature
 SUBSTAGE(2) 12 hours, reflux
 SUBSTAGE(3) reflux -> room temperature
 STAGE(2)
 RGT Q 513-77-9 BaCO₃, R 7726-95-6 Br₂
 SOL 7732-18-5 Water
 PRO AH 827046-38-8, AI 827046-39-9

TITLE: Process for the production of 2'-branched nucleosides
 INVENTOR(S): Storer, Richard; Moussa, Adel; Chaudhuri, Narayan; Waligora, Frank
 PATENT ASSIGNEE(S): Idenix Cayman Limited, Cayman I.
 SOURCE: PCT Int. Appl., 90 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 INT. PATENT CLASSIF.:
 MAIN: C07H
 CLASSIFICATION: 33-9 (Carbohydrates)
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052899	A2	20040624	WO 2003-US39643	20031212
WO 2004052899	A3	20050331		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2509687	AA	20040624	CA 2003-2509687	20031212
AU 2003300901	A1	20040630	AU 2003-300901	20031212
US 2005020825	A1	20050127	US 2003-735408	20031212
EP 1585529	A2	20051019	EP 2003-812993	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1744903	A	20060308	CN 2003-80109576	20031212
JP 2006514993	T2	20060518	JP 2005-511773	20031212
NO 2005003115	A	20050818	NO 2005-3115	20050624
PRIORITY APPLN. INFO.:			US 2002-432766P	20021212
			US 2003-466194P	20030428
			WO 2003-US39643	20031212

GRAPHIC IMAGE:



ABSTRACT:

The present invention provides an improved process for preparing ss-D and ss-L 2'-C-methyl-nucleosides and 2'-C-methyl-3'-O-ester nucleosides,

e.g. I, via glycosylation of methylribonolactone with nucleobases.

SUPPL. TERM: nucleoside prepn methylribonolactone glycosylation
nucleobase

INDEX TERM: Glycosylation
(process for production of 2'-branched nucleosides
via glycosylation of methylribonolactone with
nucleobases)

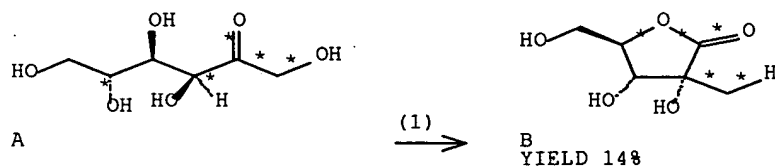
INDEX TERM: Nucleosides, preparation
ROLE: IMF (Industrial manufacture); SPN (Synthetic
preparation); PREP (Preparation)
(process for production of 2'-branched nucleosides
via glycosylation of methylribonolactone with
nucleobases)

INDEX TERM: 492-30-8P 7392-74-7P 15397-15-6P 20724-73-6P
23643-36-9P 31448-54-1P 172722-75-7P
640725-69-5P 640725-70-8P 642075-42-1P
642075-43-2P 642075-44-3P
ROLE: IMF (Industrial manufacture); RCT (Reactant);
SPN (Synthetic preparation); PREP (Preparation);
RACT (Reactant or reagent)
(process for production of 2'-branched nucleosides
via glycosylation of methylribonolactone with
nucleobases)

INDEX TERM: 640725-71-9P
ROLE: IMF (Industrial manufacture); SPN (Synthetic
preparation); PREP (Preparation)
(process for production of 2'-branched nucleosides
via glycosylation of methylribonolactone with
nucleobases)

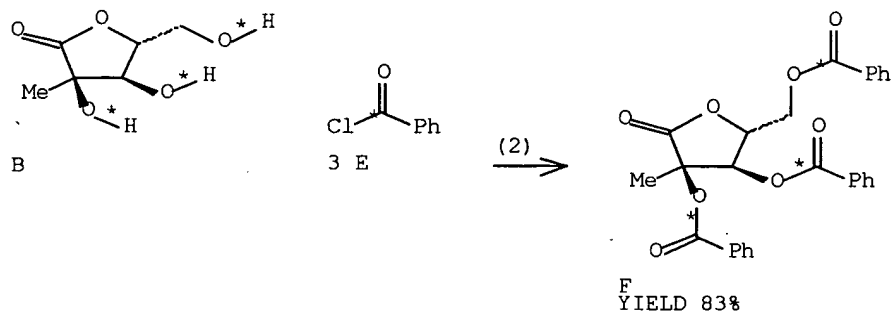
INDEX TERM: 57-48-7, D-Fructose, reactions 66-22-8, Uracil,
reactions 71-30-7, Cytosine 72-18-4, L-Valine,
reactions 75-77-4, Trimethylsilyl chloride,
reactions 999-97-3, Hexamethyldisilazane
4637-24-5 10416-59-8, BSA 13734-41-3
18162-48-6, tert-Butyldimethylchlorosilane
58479-61-1, tert-Butyldiphenylchlorosilane
701295-32-1
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(process for production of 2'-branched nucleosides
via glycosylation of methylribonolactone with
nucleobases)

RX(1) OF 115 A ==> B...



RX(1) RCT A 57-48-7
RGT C 1305-78-8 CaO
PRO B 492-30-8
SOL 7732-18-5 Water
CON SUBSTAGE(1) 5 minutes, room temperature
SUBSTAGE(2) 5 minutes, 40 deg C
SUBSTAGE(3) 3 hours
SUBSTAGE(4) 22 hours, 25 deg C, pH 13.06
NTE work up

RX(2) OF 115 ...B + 3 E ==> F...



RX(2) RCT B 492-30-8

STAGE(1)

RGT G 121-44-8 Et₃N, H 1122-58-3 4-DMAPSOL 110-71-4 (CH₂OMe)₂

CON SUBSTAGE(1) 30 minutes, 25 deg C

SUBSTAGE(2) 25 deg C -> 5 deg C

STAGE(2)

RCT E 98-88-4

CON SUBSTAGE(1) 15 minutes

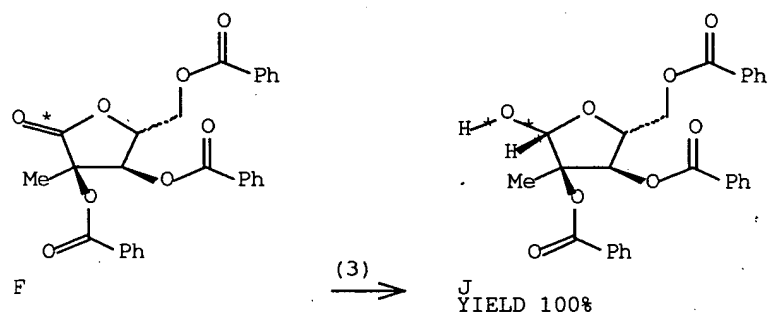
SUBSTAGE(2) 2 hours, 25 deg C

STAGE(3)

SOL 7732-18-5 Water

PRO F 7392-74-7

RX(3) OF 115 ...F ==> J...



RX(3)

STAGE(1)

RGT K 22722-98-1 Red-Al

SOL 64-17-5 EtOH, 108-88-3 PhMe

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CON SUBSTAGE(1) 5 minutes, 0 deg C
SUBSTAGE(2) 15 minutes, 0 deg C

STAGE(2)

RCT F 7392-74-7

CON SUBSTAGE(1) 10 minutes

SUBSTAGE(2) 40 minutes, -5 deg C

STAGE(3)

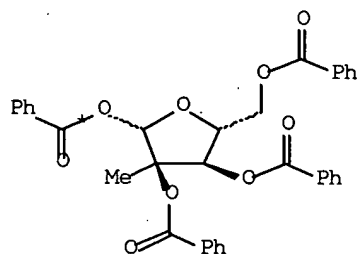
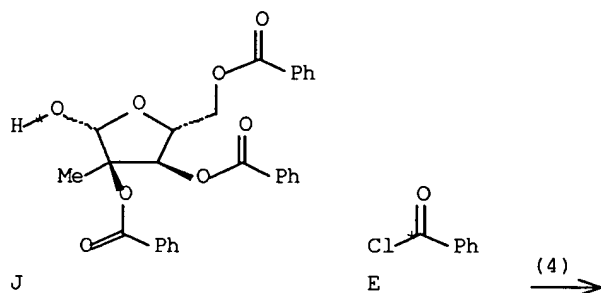
RGT L 7647-01-0 HCl

SOL 7732-18-5 Water, 67-64-1 Me2CO

CON 0 deg C

PRO J 172722-75-7

RX(4) OF 115 ...J + E ==> P...



P
YIELD 52%

RX(4) RCT J 172722-75-7, E 98-88-4

STAGE(1)

RGT G 121-44-8 Et3N, H 1122-58-3 4-DMAP

SOL 109-99-9 THF

CON SUBSTAGE(1) 5 minutes

SUBSTAGE(2) overnight, room temperature

STAGE(2)

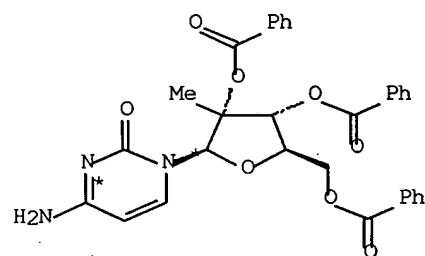
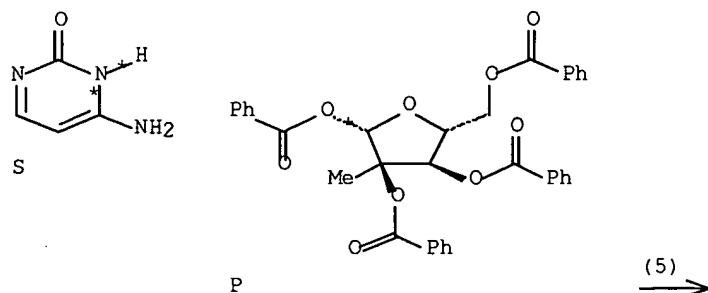
RGT Q 144-55-8 NaHCO3

SOL 7732-18-5 Water

PRO P 15397-15-6

NTE work up

RX(5) OF 115 ...S + P ==> T...



T
YIELD 100%

RX(5) RCT S 71-30-7

STAGE(1)

RGT U 10416-59-8 Me3SiN:CMeOSiMe3

SOL 75-05-8 MeCN

CON SUBSTAGE(2) 80 deg C

SUBSTAGE(3) 1 hour, 80 deg C

STAGE(2)

RCT P 15397-15-6

RGT V 7646-78-8 SnCl4

CON SUBSTAGE(2) 50 deg C

SUBSTAGE(3) 15 minutes

SUBSTAGE(4) 1 hour, 80 deg C

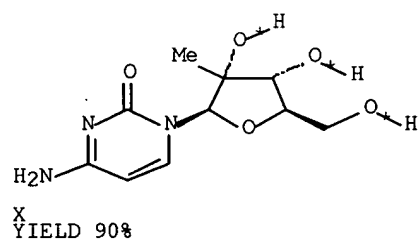
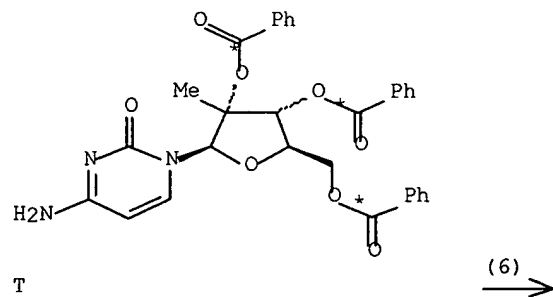
STAGE(3)

RGT Q 144-55-8 NaHCO3

SOL 7732-18-5 Water

PRO T 640725-69-5

RX(6) OF 115 ...T ==> X...



RX(6) RCT T 640725-69-5

STAGE(1)

RGT Y 124-41-4 NaOMe

SOL 67-56-1 MeOH

CON SUBSTAGE(1) room temperature

SUBSTAGE(2) 2 hours, room temperature

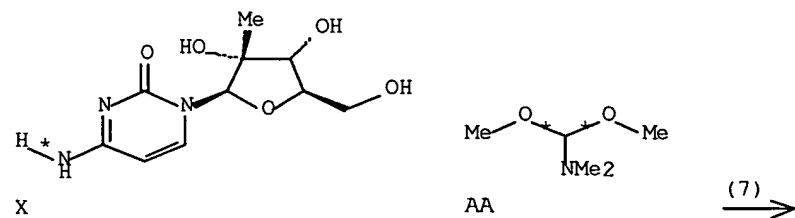
STAGE(2)

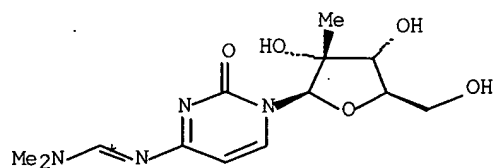
SOL 64-17-5 EtOH

CON 1 hour, 20 deg C

PRO X 20724-73-6

RX(7) OF 115 ...X + AA ==> AB...

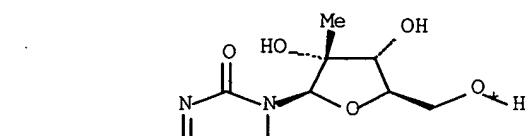




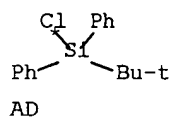
AB
YIELD 79%

RX(7) RCT X 20724-73-6, AA 4637-24-5
PRO AB 642075-42-1
SOL 68-12-2 DMF
CON 1 hour, 20 - 22 deg C

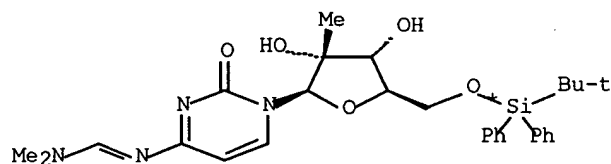
RX(8) OF 115 ...AB + AD ==> AE...



AB



(8) →



AE
YIELD 95%

RX(8) RCT AB 642075-42-1

STAGE(1)

SOL 75-09-2 CH2Cl2
CON 30 minutes, room temperature

STAGE(2)

RCT AD 58479-61-1
RGT AF 288-32-4 1H-Imidazole
SOL 75-09-2 CH2Cl2
CON SUBSTAGE(1) room temperature -> 10 deg C
SUBSTAGE(2) 20 minutes, 10 - 12 deg C
SUBSTAGE(3) 1.5 hours
SUBSTAGE(4) 20 minutes, 10 - 12 deg C
SUBSTAGE(5) 1 hour
SUBSTAGE(6) 20 minutes, 10 - 12 deg C

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SUBSTAGE(7) 1.5 hours, 12 - 15 deg C

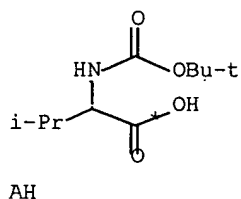
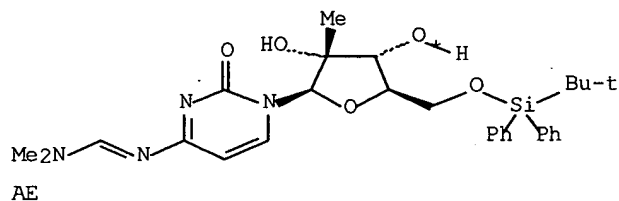
STAGE(3)

RGT Q 144-55-8 NaHCO₃

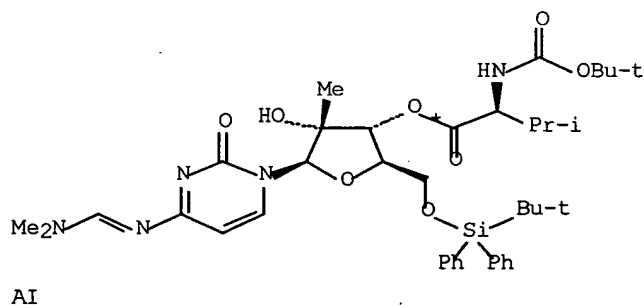
SOL 7732-18-5 Water

PRO AE 642075-43-2

RX(9) OF 115 ...AE + AH ==> AI

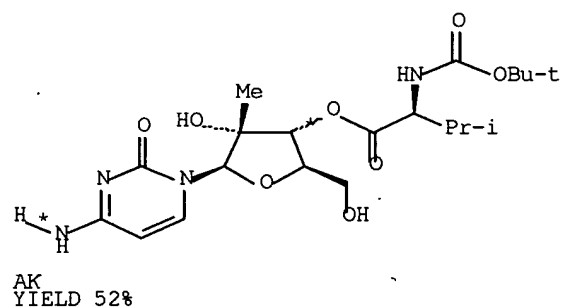
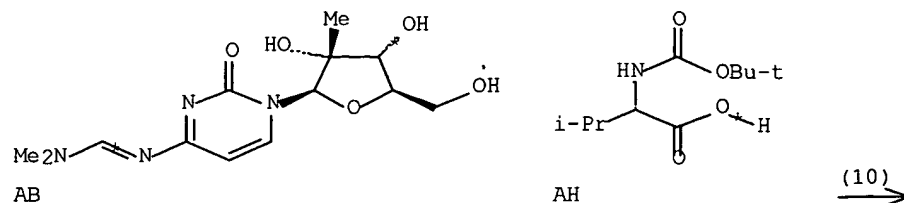


(9) →



RX(9) RCT AE 642075-43-2, AH 13734-41-3
 RGT AJ 1892-57-5 EtN:C:N(CH₂)₃Me₂, H 1122-58-3 4-DMAP
 PRO AI 642075-44-3
 SOL 75-09-2 CH₂Cl₂
 CON SUBSTAGE(1) 25 deg C
 SUBSTAGE(2) 4 hours, 25 deg C
 SUBSTAGE(3) 25 deg C
 SUBSTAGE(4) 2 hours, 25 deg C

RX(10) OF 115 ...AB + AH ==> AK...



RX(10) RCT AB 642075-42-1

STAGE(1)

SOL 75-09-2 CH₂Cl₂
CON 30 minutes, room temperature

STAGE(2)

RGT AD 58479-61-1 t-BuSiPh₂Cl, AF 288-32-4 1H-Imidazole
SOL 75-09-2 CH₂Cl₂
CON SUBSTAGE(1) room temperature -> 10 deg C
SUBSTAGE(2) 20 minutes, 10 - 12 deg C
SUBSTAGE(3) 1.5 hours
SUBSTAGE(4) 20 minutes, 10 - 12 deg C
SUBSTAGE(5) 1 hour
SUBSTAGE(6) 20 minutes, 10 - 12 deg C
SUBSTAGE(7) 1.5 hours, 12 - 15 deg C

STAGE(3)

RGT Q 144-55-8 NaHCO₃
SOL 7732-18-5 Water

STAGE(4)

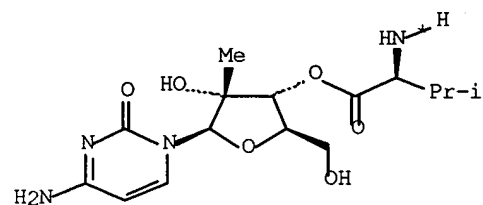
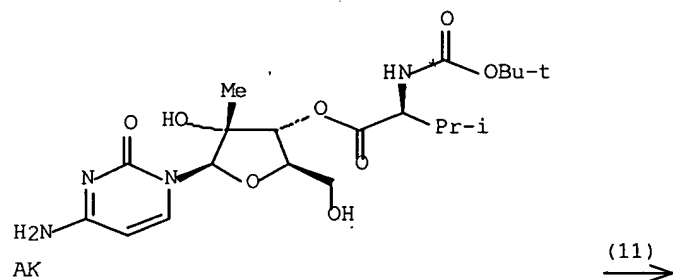
RCT AH 13734-41-3
RGT AJ 1892-57-5 EtN:C:N(CH₂)₃NMe₂, H 1122-58-3 4-DMAP
SOL 75-09-2 CH₂Cl₂
CON SUBSTAGE(1) 25 deg C
SUBSTAGE(2) 4 hours, 25 deg C
SUBSTAGE(3) 25 deg C
SUBSTAGE(4) 2 hours, 25 deg C

STAGE(5)

RGT AL 12125-01-8 (NH₄)F
SOL 67-56-1 MeOH, 141-78-6 AcOEt
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) 4 hours, 65 deg C

PRO AK 640725-70-8

RX(11) OF 115 ...AK ==> AN

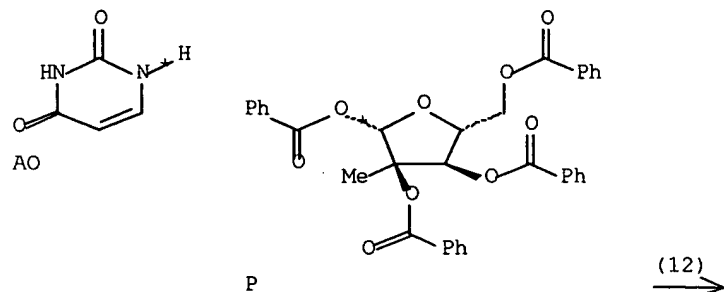


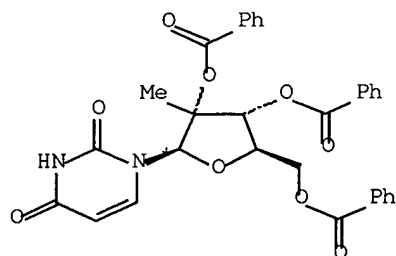
● 2 HCl

AN
YIELD 97%

RX(11) RCT AK 640725-70-8
 RGT L 7647-01-0 HCl
 PRO AN 640725-71-9
 SOL 64-17-5 EtOH
 CON SUBSTAGE(1) 1 hour, <30 deg C
 SUBSTAGE(2) 4 hours

RX(12) OF 115 ...AO + P ==> AP...





AP
YIELD 65%

RX(12) RCT AO 66-22-8

STAGE(1)

RGT U 10416-59-8 Me3SiN:CMEOsime3
SOL 75-05-8 MeCN
CON 30 minutes, reflux

STAGE(2)

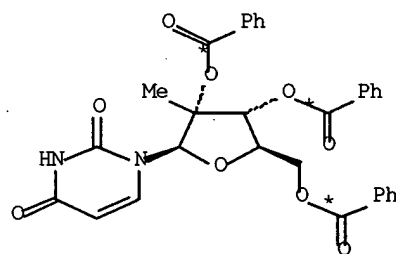
RCT P 15397-15-6
RGT V 7646-78-8 SnCl4
SOL 75-05-8 MeCN
CON 4 hours, reflux

STAGE(3)

RGT Q 144-55-8 NaHCO3
SOL 7732-18-5 Water, 141-78-6 AcOEt

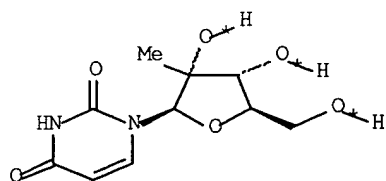
PRO AP 23643-36-9

RX(13) OF 115 ...AP ==> AQ...



AP

(13)
→



AQ
YIELD 87%

RX(13) RCT AP 23643-36-9

STAGE(1)

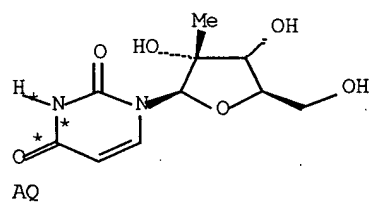
RGT Y 124-41-4 NaOMe
SOL 67-56-1 MeOH
CON 4.5 hours, room temperature

STAGE(2)

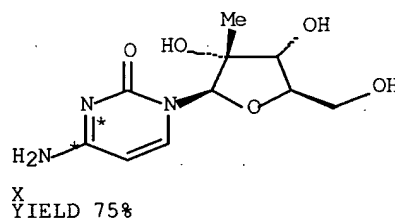
RGT AR 11114-15-1 DOWEX 50W
CON room temperature, neutralized

PRO AQ 31448-54-1

RX(14) OF 115 ...AQ ==> X...



(14)
=>



X
YIELD 75%

RX(14) RCT AQ 31448-54-1

STAGE(1)

RGT AS 75-77-4 Me3SiCl, AT 120-94-5 1-Methylpyrrolidine
SOL 75-05-8 MeCN
CON SUBSTAGE(1) 3.5 hours, room temperature
SUBSTAGE(2) room temperature -> 0 deg C

STAGE(2)

SOL 407-25-0 (CF3CO)2O
CON SUBSTAGE(2) 30 minutes

STAGE(3)

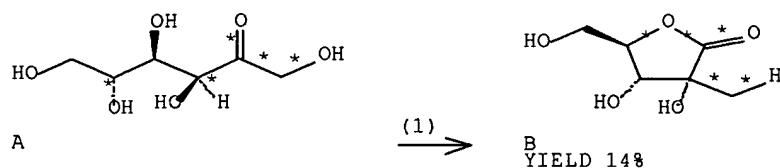
RGT AU 100-02-7 4-O2NC6H4OH
CON SUBSTAGE(2) 3 hours

STAGE(4)

RGT D 7732-18-5 Water

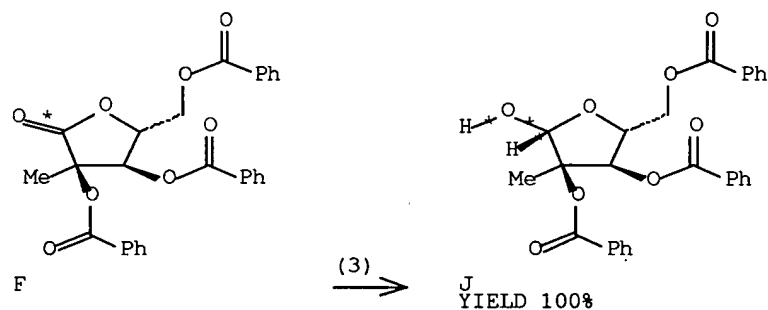
PRO X 20724-73-6

RX(1) OF 115 A ==> B...



RX(1) RCT A 57-48-7
 RGT C 1305-78-8 CaO
 PRO B 492-30-8
 SOL 7732-18-5 Water
 CON SUBSTAGE(1) 5 minutes, room temperature
 SUBSTAGE(2) 5 minutes, 40 deg C
 SUBSTAGE(3) 3 hours
 SUBSTAGE(4) 22 hours, 25 deg C, pH 13.06
 NTE work up

RX(3) OF 115 ...F ==> J...



RX(3)

STAGE(1)
 RGT K 22722-98-1 Red-Al
 SOL 64-17-5 EtOH, 108-88-3 PhMe
 CON SUBSTAGE(1) 5 minutes, 0 deg C
 SUBSTAGE(2) 15 minutes, 0 deg C

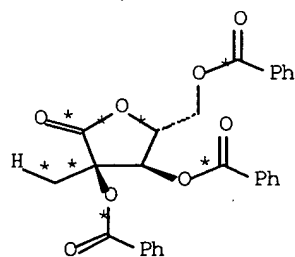
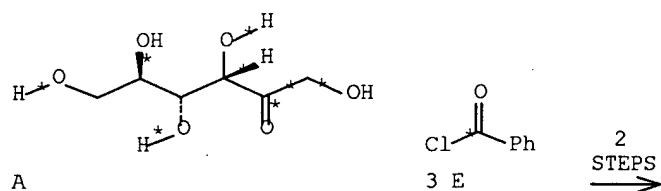
STAGE(2)
 RCT F 7392-74-7
 CON SUBSTAGE(1) 10 minutes
 SUBSTAGE(2) 40 minutes, -5 deg C

STAGE(3)
 RGT L 7647-01-0 HCl
 SOL 7732-18-5 Water, 67-64-1 Me2CO
 CON 0 deg C

PRO J 172722-75-7

RX(15) OF 115 COMPOSED OF RX(1), RX(2)

RX(15) A + 3 E ==> F



F
YIELD 83%

RX(1) RCT A 57-48-7
 RGT C 1305-78-8 CaO
 PRO B 492-30-8
 SOL 7732-18-5 Water
 CON SUBSTAGE(1) 5 minutes, room temperature
 SUBSTAGE(2) 5 minutes, 40 deg C
 SUBSTAGE(3) 3 hours
 SUBSTAGE(4) 22 hours, 25 deg C, pH 13.06
 NTE work up

RX(2) RCT B 492-30-8

STAGE(1)
 RGT G 121-44-8 Et3N, H 1122-58-3 4-DMAP
 SOL 110-71-4 (CH2OMe)2
 CON SUBSTAGE(1) 30 minutes, 25 deg C
 SUBSTAGE(2) 25 deg C -> 5 deg C

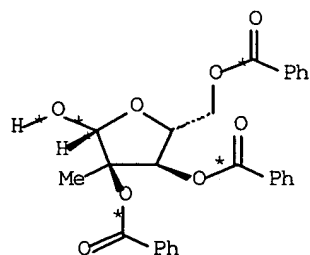
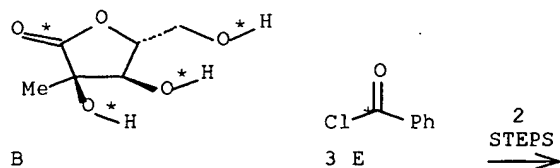
STAGE(2)
 RCT E 98-88-4
 CON SUBSTAGE(1) 15 minutes
 SUBSTAGE(2) 2 hours, 25 deg C

STAGE(3)
 SOL 7732-18-5 Water

PRO F 7392-74-7

RX(16) OF 115 COMPOSED OF RX(2), RX(3)

RX(16) B + 3 E ==> J



YIELD 100%

RX(2) RCT B 492-30-8

STAGE(1)

RGT G 121-44-8 Et₃N, H 1122-58-3 4-DMAP
 SOL 110-71-4 (CH₂OMe)₂
 CON SUBSTAGE(1) 30 minutes, 25 deg C
 SUBSTAGE(2) 25 deg C -> 5 deg C

STAGE(2)

RCT E 98-88-4
 CON SUBSTAGE(1) 15 minutes
 SUBSTAGE(2) 2 hours, 25 deg C

STAGE(3)

SOL 7732-18-5 Water

PRO F 7392-74-7

RX(3)

STAGE(1)

RGT K 22722-98-1 Red-Al
 SOL 64-17-5 EtOH, 108-88-3 PhMe
 CON SUBSTAGE(1) 5 minutes, 0 deg C
 SUBSTAGE(2) 15 minutes, 0 deg C

STAGE(2)

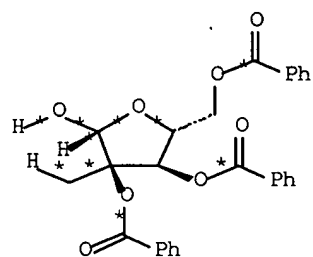
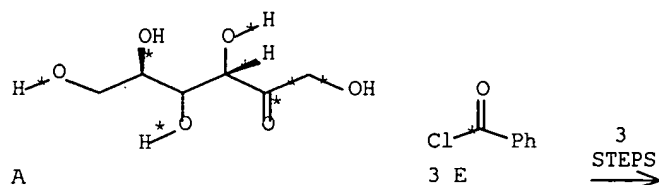
RCT F 7392-74-7
 CON SUBSTAGE(1) 10 minutes
 SUBSTAGE(2) 40 minutes, -5 deg C

STAGE(3)

RGT L 7647-01-0 HCl
 SOL 7732-18-5 Water, 67-64-1 Me₂CO
 CON 0 deg C

PRO J 172722-75-7

RX(29) OF 115 COMPOSED OF RX(1), RX(2), RX(3)
 RX(29) **A** + 3 E ==> **J**



J
YIELD 100%

RX(1) RCT **A 57-48-7**
 RGT **C 1305-78-8 CaO**
 PRO **B 492-30-8**
 SOL **7732-18-5 Water**
 CON SUBSTAGE(1) 5 minutes, room temperature
 SUBSTAGE(2) 5 minutes, 40 deg C
 SUBSTAGE(3) 3 hours
 SUBSTAGE(4) 22 hours, 25 deg C, pH 13.06
 NTE work up

RX(2) RCT **B 492-30-8**
 STAGE(1)
 RGT **G 121-44-8 Et3N, H 1122-58-3 4-DMAP**
 SOL **110-71-4 (CH2OMe)2**
 CON SUBSTAGE(1) 30 minutes, 25 deg C
 SUBSTAGE(2) 25 deg C -> 5 deg C

STAGE(2)
 RCT **E 98-88-4**
 CON SUBSTAGE(1) 15 minutes
 SUBSTAGE(2) 2 hours, 25 deg C

STAGE(3)
 SOL **7732-18-5 Water**

 PRO **F 7392-74-7**

RX(3)

STAGE(1)

10/735,408

RGT K 22722-98-1 Red-Al
SOL 64-17-5 EtOH, 108-88-3 PhMe
CON SUBSTAGE(1) 5 minutes, 0 deg C
SUBSTAGE(2) 15 minutes, 0 deg C

STAGE(2)

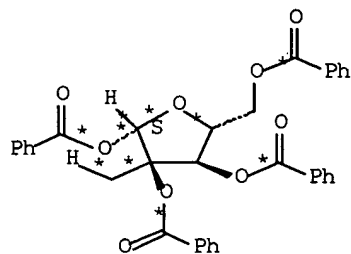
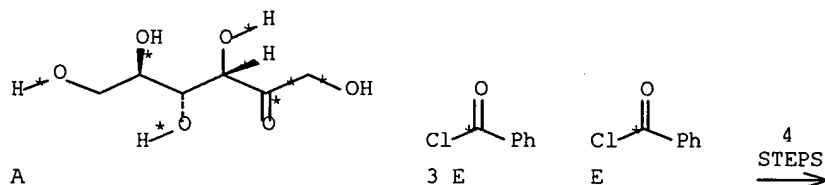
RCT F 7392-74-7
CON SUBSTAGE(1) 10 minutes
SUBSTAGE(2) 40 minutes, -5 deg C

STAGE(3)

RGT L 7647-01-0 HCl
SOL 7732-18-5 Water, 67-64-1 Me2CO
CON 0 deg C

PRO J 172722-75-7

RX(31) OF 115 COMPOSED OF RX(1), RX(2), RX(3), RX(4)
RX(31) A + 4 E ==> P



P
YIELD 52%

RX(1) RCT A 57-48-7
RGT C 1305-78-8 CaO
PRO B 492-30-8
SOL 7732-18-5 Water
CON SUBSTAGE(1) 5 minutes, room temperature
SUBSTAGE(2) 5 minutes, 40 deg C
SUBSTAGE(3) 3 hours
SUBSTAGE(4) 22 hours, 25 deg C, pH 13.06
NTE work up

RX(2) RCT B 492-30-8

STAGE(1)

RGT G 121-44-8 Et3N, H 1122-58-3 4-DMAP
SOL 110-71-4 (CH2OMe)2

10/735,408

CON SUBSTAGE(1) 30 minutes, 25 deg C
SUBSTAGE(2) 25 deg C -> 5 deg C

STAGE(2)

RCT E 98-88-4
CON SUBSTAGE(1) 15 minutes
SUBSTAGE(2) 2 hours, 25 deg C

STAGE(3)

SOL 7732-18-5 Water

PRO F 7392-74-7

RX(3)

STAGE(1)

RGT K 22722-98-1 Red-Al
SOL 64-17-5 EtOH, 108-88-3 PhMe
CON SUBSTAGE(1) 5 minutes, 0 deg C
SUBSTAGE(2) 15 minutes, 0 deg C

STAGE(2)

RCT F 7392-74-7
CON SUBSTAGE(1) 10 minutes
SUBSTAGE(2) 40 minutes, -5 deg C

STAGE(3)

RGT L 7647-01-0 HCl
SOL 7732-18-5 Water, 67-64-1 Me2CO
CON 0 deg C

PRO J 172722-75-7

RX(4)

RCT J 172722-75-7, E 98-88-4

STAGE(1)

RGT G 121-44-8 Et3N, H 1122-58-3 4-DMAP
SOL 109-99-9 THF
CON SUBSTAGE(1) 5 minutes
SUBSTAGE(2) overnight, room temperature

STAGE(2)

RGT Q 144-55-8 NaHCO3
SOL 7732-18-5 Water

PRO P 15397-15-6

NTE work up

=> => d que stat 182

L9	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	492-30-8/RN
L10	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	57-48-7/RN
L11	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	15397-15-6/RN
L33	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	65312-92-7/RN
L34	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	32248-43-4/RN
L35	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	223258-89-7/RN
L37	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	1333-74-0/RN
L39	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	17326-58-8/RN
L44	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	7392-74-7/RN
L45	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	172722-75-7/RN
L47	1664	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L10/P
L48	6	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L11/P
L49	7	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L44/P
L50	2	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L45/P
L51	1674	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	(L47 OR L48 OR L49 OR L50)
L53	11	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L9/RCT

L54 26 SEA FILE=HCAPLUS ABB=ON PLU=ON (L9 OR FRUCTOSE/RCT)
L55 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND L51
L56 151 SEA FILE=HCAPLUS ABB=ON PLU=ON L33
L57 1242 SEA FILE=HCAPLUS ABB=ON PLU=ON L34
L58 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L35
L59 317085 SEA FILE=HCAPLUS ABB=ON PLU=ON L37
L60 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L39
L61 318481 SEA FILE=HCAPLUS ABB=ON PLU=ON (L56 OR L57 OR L58 OR
L59 OR L60)
L63 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L61 AND L51
L64 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND L51
L65 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L55 OR (L63 OR L64)
L66 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L65 AND L61
L69 QUE ABB=ON PLU=ON PRODUC? OR PROD# OR GENERAT? OR MA
NUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMAT?
OR MAKE# OR MADE# OR MAKIN# OR FABRICAT? OR SYNTHESI?
OR PREPAR? OR PREP#
L70 16 SEA FILE=HCAPLUS ABB=ON PLU=ON (L63 OR L64 OR L65 OR
L66)
L71 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L70 AND L69
L72 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L66 OR L71
L73 26 SEA FILE=HCAPLUS ABB=ON PLU=ON L9
L74 32087 SEA FILE=HCAPLUS ABB=ON PLU=ON L10
L75 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L11
L76 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L44
L77 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L45
L78 32107 SEA FILE=HCAPLUS ABB=ON PLU=ON (L74 OR L75 OR L76 OR
L77)
L80 7480 SEA FILE=HCAPLUS ABB=ON PLU=ON L78(L) L69
L81 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND L73
L82 17 SEA FILE=HCAPLUS ABB=ON PLU=ON L81 OR L72

=> d 182 1-17 ibib abs hitstr hitind

L82 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:615096 HCAPLUS Full-text
DOCUMENT NUMBER: 145:123184
TITLE: Method for **manufacturing** mannitol
from sucrose
INVENTOR(S): Zhang, Chaohui; Wang, Jianping; He, Junlin
PATENT ASSIGNEE(S): Nanning Chemical Research and Design
Institute, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu,
10 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
CN 1687432	A	20051026	CN 2005-10018565	2005 0413
PRIORITY APPLN. INFO.:			CN 2005-10018565	2005 0413

OTHER SOURCE(S): CASREACT 145:123184
AB The title method comprises: (1) hydrolyzing sucrose with a simulated moving bed to obtain glucose and fructose, (2) separating glucose-rich fraction, (3) isomerizing with glucose isomerase, and carrying out ion exchange to purify, (4) combining with the fructose-rich fraction for hydrogenating at 100-180°C under 4-7 MPa for 1-3 h in the

presence of a hydrogenation catalyst, and (5) filtering, ion-exchanging, concentrating, crystallizing, centrifugating, and drying to obtain mannitol in 42% yield.

IT 57-48-7P, Fructose, **preparation**

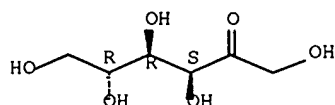
RL: BPN (Biosynthetic preparation); CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(method for **preparing** mannitol from sucrose)

RN 57-48-7 HCAPLUS

CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 1333-74-0, Hydrogen, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)

(method for **preparing** mannitol from sucrose)

RN 1333-74-0 HCAPLUS

CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H-H

IC ICM C12P007-18

ICS C07C031-26; C07C029-09; C07C029-141

CC 16-5 (Fermentation and Bioindustrial Chemistry)

ST mannitol **prepn** sucrose glucose fructose enzymic isomerization

IT Catalysts

Hydrolysis

(method for **preparing** mannitol from sucrose)

IT 7440-02-0, Raney nickel, uses

RL: CAT (Catalyst use); USES (Uses)

(catalysts; method for **preparing** mannitol from sucrose)

IT 50-99-7P, D-Glucose, **preparation**

RL: BCP (Biochemical process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(method for **preparing** mannitol from sucrose)

IT 69-65-8P, Mannitol

RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

(method for **preparing** mannitol from sucrose)

IT 57-48-7P, Fructose, **preparation**

RL: BPN (Biosynthetic preparation); CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(method for **preparing** mannitol from sucrose)

IT 57-50-1, Sucrose, biological studies

RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)

(method for **preparing** mannitol from sucrose)

IT 9055-00-9, Glucose isomerase

RL: CAT (Catalyst use); USES (Uses)

(method for **preparing** mannitol from sucrose)

IT 1333-74-0, Hydrogen, processes
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
 (method for **preparing** mannitol from sucrose)
 IT 7647-01-0, Hydrochloric acid, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (method for **preparing** mannitol from sucrose)

L82 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:209715 HCAPLUS Full-text
 DOCUMENT NUMBER: 144:292126
 TITLE: Methods, compositions, and apparatuses for **forming** macrocyclic compounds
 INVENTOR(S): Johnson, Thomas E.; Fowler, Billy T.
 PATENT ASSIGNEE(S): USA
 SOURCE: PCT Int. Appl., 85 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2006025859	A2	20060309	WO 2005-US5028	

2005
0217

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

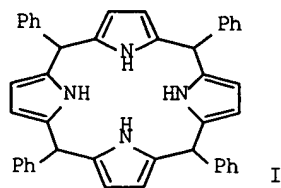
PRIORITY APPLN. INFO.: US 2004-545131P P

2004
0217

US 2005-59796 A

2005
0217

GI



AB The invention is related to a process for **manufacturing** of at least one macrocyclic compound, e.g. tetraphenylporphyrinogen I, by (a) providing a reaction system comprising one or more reactants in a reaction medium, which are capable of **forming** the macrocycle through a desired reaction pathway that includes at least cyclization reaction(s), and which are further capable of **forming** undesired oligomers through at least one undesired reaction pathway that includes undesirable oligomerization reactions; and (b) modulating oligomerization reactions in the reaction medium, so as to reduce **formation** of the undesired oligomers and/or to reduce separation of the undesired oligomers from the reaction medium, relative to corresponding unmodulated oligomerization reactions. Oligomerization control additives are claimed. Cyclization solvents, and solvents that assist with spontaneous separation of the macrocycle from the reaction medium, are also claimed. Reaction of benzaldehyde with pyrrole in a reaction composition that contained about 37.5% by volume MeOH (precipitating solvent), 62.5% by volume H₂O (oligomerization control additive), and 0.014 g/mL NaCl (separation additive) gave tetraphenylporphyrinogen I, in about 85% yield, compared to less than 1% in the absence of any oligomerization control. Prophetic examples of addnl. potential macrocyclic compds., e.g. porphyrins, macrocyclic imines, aryl boronates, crown ethers, cyclic peptides, etc., are also given and claimed.

IT 57-48-7P, Fructose, **preparation**

1333-74-0P, Hydrogen, **preparation**

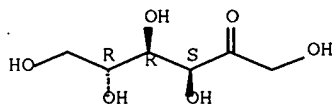
RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)

(oligomerization control additive; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

RN 57-48-7 HCAPLUS

CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 1333-74-0 HCAPLUS

CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H-H

CC 21-2 (General Organic Chemistry)

Section cross-reference(s): 26, 28, 29, 34, 45

ST macrocyclic **prepn** macrocyclization oligomerization

control additive; phenylporphyrinogen porphyrin imine cyclic

peptide aryl boronate lactone **prepn**;

aminomethylphosphine porphyrinogen calixpyrrole dibutyltin

dicarboxylate macrocyclic **prepn**

IT Alkynes

RL: RCT (Reactant); RACT (Reactant or reagent)

(alkadiynes, precursors for arylene ethynylene macrocycles;

preparation of macrocyclic compds. via macro/cyclization by

modulating oligomerization reactions in the reaction medium)

IT Silanes

RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT

(Reactant or reagent)

(alkoxy, oligomerization control additives; **preparation** of

macrocyclic compds. via macrocyclization by modulating

oligomerization reactions in the reaction medium)

IT Diphosphates

- RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(alkyl; oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)
- IT Sulfones
RL: IMF (Industrial manufacture); PREP (Preparation)
(aryl, macrocyclic aromatic thioether sulfone **products**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Macrocyclic compounds
RL: IMF (Industrial manufacture); PREP (Preparation)
(arylene ethynylene macrocyclic **products**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Borates
RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(borate esters; oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)
- IT Acids, **preparation**
Group IIIA element compounds
RL: BYP (Byproduct); IMF (Industrial manufacture); RCT (Reactant); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(boronic acids; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)
- IT Carboxylic acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(containing ether terminal groups; precursors for macrocyclic lactone; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Peptides, **preparation**
RL: IMF (Industrial manufacture); PREP (Preparation)
(cyclic, macrocyclic cyclic peptide **products**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Acetals
RL: RCT (Reactant); RACT (Reactant or reagent)
(di-; precursors for macrocyclic crown ethers; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(diamines, aromatic, reactants; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(diamines, precursors for macrocyclic imines; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Carboxylic acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(dicarboxylic, precursors for macrocyclic dibutyltin dicarboxylate; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Ketones, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(diketones, precursors for macrocycles; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Particles
(energized; oligomerization control additives; **preparation**

- of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)
- IT Crown ethers
RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic crown ether **products; preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Imines
RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic imine **products; preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Lactones
RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic lactone **products; preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Porphyrins
RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic **products; preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Particles
(neutral, oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)
- IT Anions
Cations
Zwitterions
(oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)
- IT Alkyl halides
Amino acids, **preparation**
Bromides, **preparation**
Disulfides
Elements
Inorganic compounds
Organic compounds, **preparation**
Organometallic compounds
Peroxides, **preparation**
Radicals, **preparation**
Silanes
Sulfates, **preparation**
Sulfenic acids
Sulfinic acids
Sulfones
Sulfoxides
Thiols, **preparation**
RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)
- IT Polymerization
(oligomerization, control additives; use of oligomerization control additives to reduce **formation** of the undesired oligomers and/or to reduce separation of the undesired oligomers from the reaction medium)
- IT Peptides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(peptides flanked with thioether and thiol terminal groups; precursors for macrocyclic cyclic peptides; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Ketones, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)

- (precursors for macrocyclic calix[4]pyrroles; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Dialdehydes
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursors for macrocyclic imines; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Aldehydes, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursors for porphyrinogen; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Cyclization
(**preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Phosphines
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Apparatus
Macrocyclization
(**preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)
- IT Sulfonic acids, **preparation**
RL: BYP (Byproduct); CAT (Catalyst use); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(**preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)
- IT Sulfites
RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(sulfite esters; oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)
- IT Aromatic compounds
RL: IMF (Industrial manufacture); PREP (Preparation)
(sulfones, macrocyclic aromatic thioether sulfone **products**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT Rare earth metals, uses
RL: CAT (Catalyst use); USES (Uses)
(triflates; use of Lewis acids as cyclization catalyst in the **preparation** of porphyrinogens)
- IT 16867-04-2, 2,3-Dihydroxypyridine
RL: RCT (Reactant); RACT (Reactant or reagent)
(aryl; precursor for macrocyclic boronates; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT 97-94-9, Triethylboron 109-63-7, Boron trifluoride etherate 373-57-9 7446-70-0, Aluminum chloride (AlCl₃), uses 7647-17-8, Cesium chloride (CsCl), uses 7784-18-1, Aluminum fluoride (AlF₃) 7788-97-8, Chromium fluoride (CrF₃) 10025-82-8, Indium chloride (InCl₃) 10038-98-9, Germanium chloride (GeCl₄) 10099-58-8, Lanthanum chloride (LaCl₃) 13465-55-9 19423-80-4, Europium trichloride hydrate 144026-79-9, Scandium triflate
RL: CAT (Catalyst use); USES (Uses)
(catalyst; use of Lewis acids as cyclization catalyst in the **preparation** of porphyrinogens)
- IT 65-85-0, Benzoic acid, uses 75-75-2, Methanesulfonic acid 76-03-9, Trichloroacetic acid, uses 76-05-1, Trifluoroacetic acid, uses 79-09-4, Propionic acid, uses 98-11-3, Benzenesulfonic acid, uses 104-15-4, p-Toluenesulfonic acid, uses 1493-13-6, Triflic acid 3144-16-9, Camphor sulfonic acid
RL: CAT (Catalyst use); USES (Uses)
(catalyst; use of protic acids as cyclization catalyst in the

- preparation of porphyrinogens)**
- IT 50-00-0, **Formol**, uses 57-55-6, Propylene glycol, uses 60-29-7, Ethyl ether, uses 64-18-6, **Formic acid**, uses 67-63-0, Isopropanol, uses 67-66-3, Chloroform, uses 67-68-5, Dimethyl sulfoxide, uses 75-15-0, Carbon disulfide, uses 75-52-5, Nitromethane, uses 75-65-0, tert-Butanol, uses 78-83-1, Isobutanol, uses 78-93-3, Methyl ethyl ketone, uses 97-99-4 100-79-8, Solketal 107-21-1, Ethylene glycol, uses 108-88-3, Toluene, uses 109-86-4, Methyl cellosolve 109-99-9, Tetrahydrofuran, uses 110-71-4, Monoglyme 110-71-4D, Glyme, derivs. 110-80-5, Cellosolve 111-46-6, Diethylene glycol, uses 111-77-3, Methyl carbitol 111-90-0, Carbitol 111-96-6, Diglyme 112-25-4, Hexyl cellosolve 112-34-5, Butyl carbitol 112-35-6 112-36-7, Ethyl diglyme 112-49-2, Triglyme 112-50-5, Ethoxytriglycol 112-59-4, Hexyl carbitol 112-73-2, Dibutyl carbitol 123-91-1, 1,4-Dioxane, uses 124-16-3, 1-Butoxyethoxy-2-propanol 126-33-0, Sulfolane 138-86-3, Limonene 141-78-6, Ethyl acetate, uses 143-22-6, Butoxytriglycol 143-24-8, Tetraglyme 540-67-0, Methyl ethyl ether 680-31-9, Hexamethylphosphorictriamide, uses 872-50-4, N-Methyl-2-pyrrolidone, uses 5306-85-4, Dimethyl isosorbide 24800-44-0, Tripropylene glycol 25265-71-8, Dipropylene glycol 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol 29387-86-8 30136-13-1 31692-85-0, Glycofurol 101063-18-7, Propasol DM 214210-60-3, Propasol M 879096-90-9, Hydrosolv
- RL: NUU (Other use, unclassified); USES (Uses)
(co-solvent; use of co-solvents for spontaneous separation of the macrocycle from the reaction medium)
- IT 56-23-5, Carbon tetrachloride, uses 108-90-7, Chlorobenzene, uses
- RL: NUU (Other use, unclassified); USES (Uses)
(cyclization solvent; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT 7392-96-3DP, derivs.
- RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic dibutyltin dicarboxylate **products**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT 27226-54-6P
- RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic porphyrinogen **product**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)
- IT 7647-01-0P, Hydrochloric acid, **preparation** 7664-93-9P, Sulfuric acid, **preparation** 10035-10-6P, Hydrobromic acid, **preparation**
- RL: BYP (Byproduct); CAT (Catalyst use); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(oligomerization control additive, catalyst; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)
- IT 121-44-8P, Triethylamine, **preparation**
- RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(oligomerization control additive, co-solvent for spontaneous separation of the macrocycle from the reaction medium; use of co-solvents for spontaneous separation of the macrocycle from the reaction medium)
- IT 67-64-1P, Acetone, **preparation** 71-36-3P, n-Butanol, **preparation** 75-50-3P, Trimethylamine, **preparation** 109-89-7P, Diethylamine, **preparation** 124-40-3P, Dimethylamine, **preparation** 142-84-7P, Dipropylamine
- RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(oligomerization control additive, co-solvent for spontaneous

- separation of the macrocycle from the reaction medium; **prepn**
 . of macrocyclic compds. via macrocyclization by modulating
 oligomerization reactions in the reaction medium)
- IT 56-81-5P, Glycerol, **preparation** 71-23-8P, n-Propanol,
preparation 74-89-5P, Methylamine, **preparation**
 75-04-7P, Ethylamine, **preparation** 107-10-8P,
 Propylamine, **preparation** 109-73-9P, Butylamine,
preparation 7664-41-7P, Ammonia, **preparation**
 RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent);
 PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (oligomerization control additive, co-solvent for the
 spontaneous separation of the macrocycle from the reaction medium;
preparation of macrocyclic compds. via macrocyclization by
 modulating oligomerization reactions in the reaction medium)
- IT 7732-18-5P, Water, **preparation**
 RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent);
 PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (oligomerization control additive, co-solvents for spontaneous
 separation of the macrocycle from the reaction medium; **prepn**
 . of macrocyclic compds. via macrocyclization by modulating
 oligomerization reactions in the reaction medium)
- IT 108-95-2P, Phenol, **preparation**
 RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT
 (Reactant or reagent)
 (oligomerization control additive, co-solvents for spontaneous
 separation of the macrocycle from the reaction medium; **prepn**
 . of macrocyclic compds. via macrocyclization by modulating
 oligomerization reactions in the reaction medium)
- IT 64-17-5P, Ethanol, **preparation** 67-56-1P, Methanol,
preparation
 RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent);
 PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (oligomerization control additive; co-solvent for spontaneous
 separation of the macrocycle from the reaction medium; **prepn**
 . of macrocyclic compds. via macrocyclization by modulating
 oligomerization reactions in the reaction medium)
- IT 64-19-7P, Acetic acid, **preparation**
 RL: BYP (Byproduct); CAT (Catalyst use); NUU (Other use,
 unclassified); RGT (Reagent); PREP (Preparation); RACT (Reactant
 or reagent); USES (Uses)
 (oligomerization control additive; cyclization solvent;
 catalyst; **preparation** of macrocyclic compds. via
 macrocyclization by modulating oligomerization reactions in the
 reaction medium)
- IT 62-53-3P, Aniline, **preparation** 124-38-9P, Carbon
 dioxide, **preparation** 7783-06-4P, Dihydrogen sulfide,
preparation
 RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent);
 PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (oligomerization control additive; **preparation** of
 macrocyclic compds. via macrocyclization by modulating
 oligomerization reactions in the reaction medium)
- IT 50-21-5P, Lactic acid, **preparation** 50-99-7P, Glucose,
preparation 57-48-7P, Fructose,
preparation 58-64-0P, Adenosine diphosphate,
preparation 58-97-9P, Uridine 5'-monophosphate,
preparation 58-98-0P, Uridine diphosphate,
preparation 59-23-4P, Galactose, **preparation**
 61-19-8P, Adenosine 5'-monophosphate, **preparation**
 63-37-6P, Cytidine 5'-monophosphate 63-38-7P, Cytidine
 diphosphate 74-85-1P, Ethylene, **preparation**
 74-90-8P, Hydrogen cyanide, **preparation** 75-47-8P,
 Iodoform 75-75-2DP, Methylsulfonic acid, mesylates 85-32-5P,
 Guanosine 5'-monophosphate 100-51-6P, Benzyl alcohol,
preparation 108-98-5P, Thiophenol, **preparation**
 110-86-1P, Pyridine, **preparation** 123-56-8P,
 Succinimide 146-91-8P, Guanosine diphosphate 149-91-7P, Gallic

- acid, **preparation** 365-07-1P, Thymidine
 5'-monophosphate 491-97-4P, Thymidine diphosphate 503-17-3P,
 2-Butyne 556-64-9P, Methyl thiocyanate 630-08-0P, Carbon
 monoxide, **preparation** 1333-74-0P, Hydrogen,
preparation 1493-13-6DP, Triflic acid, triflates
 2466-09-3P, Pyrophosphoric acid 6066-82-6P, N-Hydroxysuccinimide
 7446-09-5P, Sulfur dioxide, **preparation** 7601-90-3P,
 Perchloric acid, **preparation** 7664-38-2P, Phosphoric
 acid, **preparation** 7727-37-9P, Nitrogen,
preparation 7782-77-6P, Nitrous acid 7789-20-0P,
 Deuterium oxide 10034-85-2P, Hydroiodic acid 13444-71-8P,
 Periodic acid 77464-05-2P, N,N-Diisopropylurea
 RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT
 (Reactant or reagent)
 (oligomerization control additive; **preparation** of
 macrocyclic compds. via macrocyclization by modulating
 oligomerization reactions in the reaction medium)
- IT 1067-33-0, Dibutyltin diacetate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (precursor for macrocyclic dibutyltin dicarboxylate;
preparation of macrocyclic compds. via macro/cyclization by
 modulating oligomerization reactions in the reaction medium)
- IT 100-39-0, (Bromomethyl)benzene 4238-71-5D, derivs.
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (precursors for bicyclic imidazolium-linked compds.;
preparation of macrocyclic compds. via macro/cyclization by
 modulating oligomerization reactions in the reaction medium)
- IT 37116-97-5D, derivs.
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (precursors for macrocyclic aromatic thioether sulfones;
preparation of macrocyclic compds. via macro/cyclization by
 modulating oligomerization reactions in the reaction medium)
- IT 74630-20-9D, derivs.
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (precursors for macrocyclic crown ethers; **preparation** of
 macrocyclic compds. via macro/cyclization by modulating
 oligomerization reactions in the reaction medium)
- IT 170111-05-4D, derivs. 878999-69-0D, hetero derivs.
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (precursors for macrocyclic heteroheptaphyrins; **prepn**
 of macrocyclic compds. via macro/cyclization by modulating
 oligomerization reactions in the reaction medium)
- IT 109-97-7D, Pyrrole, derivs.
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (precursors for porphyrinogens; **preparation** of macrocyclic
 compds. via macro/cyclization by modulating oligomerization
 reactions in the reaction medium)
- IT 4396-11-6DP, Porphyrinogen, derivs.
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (**preparation** of macrocyclic compds. via macro/cyclization
 by modulating oligomerization reactions in the reaction medium)
- IT 100-52-7, Benzaldehyde, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (**preparation** of macrocyclic compds. via macro/cyclization
 by modulating oligomerization reactions in the reaction medium)
- IT 108-46-3DP, Resorcinol, derivs.
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (**preparation** of macrocyclic compds. via macrocyclization
 by modulating oligomerization reactions in the reaction medium)
- IT 17009-90-4DP, Imidazolium, bicyclic imidazolium-linked compds.
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (products; **preparation** of macrocyclic compds.
 via macro/cyclization by modulating oligomerization reactions
 in the reaction medium)
- IT 7632-05-5, Sodium phosphate
 RL: NUU (Other use, unclassified); USES (Uses)

(salt additive; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 7647-14-5, Sodium chloride (NaCl), uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (separation additive salt; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

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ACCESSION NUMBER: 2005:1052171 HCAPLUS Full-text

DOCUMENT NUMBER: 144:375427

TITLE: Comparative performance of thermophilic and mesophilic anaerobic hydrogen fermentation
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CORPORATE SOURCE: Department of Environmental Engineering, National Cheng Kung University, Tainan, 701, Taiwan

SOURCE: Environmental Biotechnology: Advancement in Water and Wastewater Applications in the Tropics, Selected Proceedings of the IWA International Conference on Environmental Biotechnology, Kuala Lumpur, Malaysia, Dec. 9-10, 2003 (2004), Meeting Date 2003, 69-75.
 Editor(s): Ujang, Zaini; Henze, Mogens. IWA Publishing: London, UK.

CODEN: 69HJXK; ISBN: 1-84339-503-7

DOCUMENT TYPE: Conference

LANGUAGE: English

AB This work compared the performance of H₂ fermentation between 2 anaerobic H₂ fermentation bioreactors, one bioreactor operated at 35 ± 2°, the other at 55 ± 2°. The thermophilic anaerobic H₂ fermentation (TAHF) bioreactor achieved a H₂ yield 8.4 mmol H₂/g COD larger than the 5.6 mmol H₂/g COD of the mesophilic anaerobic H₂ fermentation (MAHF) bioreactor. A specific H₂- **producing** rate of 7.1 mmol H₂/g volatile suspended solids [VSS]-h of the TAHF bioreactor exceeded the 5.8 mmol H₂/g VSS-h of the MAHF. Electron flow recovery was 88.7% for the conversion of 1 g substrate in the TAHF bioreactor vs. 73.2% in the MAHF bioreactor. Acetate and butyrate predominated in the MAHF bioreactor; ethanol and acetate predominated in the TAHF. The thermophilic bioreactor achieved higher specific H₂- **producing** rates and H₂ yields.

IT 1333-74-0, Hydrogen, processes

RL: BCP (Biochemical process); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)

(performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

RN 1333-74-0 HCAPLUS

CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H-H

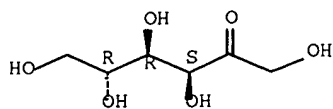
IT 57-48-7P, Fructose, **preparation**

RL: IMF (Industrial manufacture); PREP (Preparation)
 (wastewater from; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

RN 57-48-7 HCAPLUS

CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- CC 60-1 (Waste Treatment and Disposal)
Section cross-reference(s): 10, 16, 17, 40
- ST thermophilic anaerobic hydrogen fermn bioreactor performance;
mesophilic anaerobic hydrogen fermn bioreactor performance;
acrylic fiber **manuf** wastewater thermophilic anaerobic
hydrogen fermn; fructose **manufg** wastewater mesophilic
anaerobic hydrogen fermn
- IT Wastewater
(acrylic fiber vs. fructose **manufacturing**; performance of
thermophilic vs. mesophilic anaerobic hydrogen fermentation in
bioreactors fed acrylic fiber **manufacturing** vs. fructose
manufacturing wastewater)
- IT Nutrients
(bacterial culture medium; performance of thermophilic vs.
mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic
fiber **manufacturing** vs. fructose **manufacturing**
wastewater)
- IT Peptones
RL: BCP (Biochemical process); REM (Removal or disposal); BIOL
(Biological study); PROC (Process)
(bacterial substrate; performance of thermophilic vs.
mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic
fiber **manufacturing** vs. fructose **manufacturing**
wastewater)
- IT Wastewater treatment
(fermentation; performance of thermophilic vs. mesophilic anaerobic
hydrogen fermentation in bioreactors fed acrylic fiber **manufg**
. vs. fructose **manufacturing** wastewater)
- IT Anaerobic bacteria
(mesophilic and thermophilic hydrogen-producing;
performance of thermophilic vs. mesophilic anaerobic hydrogen
fermentation in bioreactors fed acrylic fiber **manufacturing** vs.
fructose **manufacturing** wastewater)
- IT Chemical oxygen demand
Clostridium butyricum
Growth, microbial
Respiration, microbial
Thermoanaerobacterium thermosulfurigenes
(performance of thermophilic vs. mesophilic anaerobic hydrogen
fermentation in bioreactors fed acrylic fiber **manufacturing** vs.
fructose **manufacturing** wastewater)
- IT Bioreactors
(thermophilic vs. mesophilic fermentation; performance of
thermophilic vs. mesophilic anaerobic hydrogen fermentation in
bioreactors fed acrylic fiber **manufacturing** vs. fructose
manufacturing wastewater)
- IT Fatty acids, processes
RL: BCP (Biochemical process); FMU (Formation, unclassified); BIOL
(Biological study); FORM (Formation, nonpreparative); PROC
(Process)
(volatile; performance of thermophilic vs. mesophilic anaerobic
hydrogen fermentation in bioreactors fed acrylic fiber **manufg**
. vs. fructose **manufacturing** wastewater)
- IT Acrylic fibers, **preparation**
RL: IMF (Industrial manufacture); PREP (Preparation)
(wastewater from; performance of thermophilic vs. mesophilic
anaerobic hydrogen fermentation in bioreactors fed acrylic fiber

- manufacturing** vs. fructose **manufacturing** wastewater)
- IT 57-50-1, Sucrose, processes
 RL: BCP (Biochemical process); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
 (bacterial substrate; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)
- IT 50-99-7, Glucose, processes
 RL: BCP (Biochemical process); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
 (bacterial substrate; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)
- IT 12408-02-5, Hydrogen ion, occurrence
 RL: OCU (Occurrence, unclassified); OCCU (Occurrence)
 (bioreactor; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)
- IT 64-17-5, Ethanol, processes 64-18-6, Formic acid, processes 64-19-7, Acetic acid, processes 79-09-4, Propionic acid, processes 107-92-6, Butyric acid, processes 124-38-9, Carbon dioxide, processes 1333-74-0, Hydrogen, processes
 RL: BCP (Biochemical process); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
 (performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)
- IT 57-48-7P, Fructose, **preparation**
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (wastewater from; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)
- REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L82 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:652670 HCAPLUS Full-text
 DOCUMENT NUMBER: 141:157383
 TITLE: Process for the **preparation** of ribofuranose derivatives from 2-C-methyl-D-ribose-1,4-lactone via regioselective benzylation and borohydride reduction as synthons for nucleotides
 INVENTOR(S): Tamerlani, Giancarlo; Salsini, Liana; Lombardi, Ilaria; Bartalucci, Debora; Cipolletti, Giovanni
 PATENT ASSIGNEE(S): Inalco S.P.A., Italy
 SOURCE: U.S. Pat. Appl. Publ., 12 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2004158059	A1	20040812	US 2003-447167	2003 0527
US 6891036	B2	20050510		
WO 2004069851	A1	20040819	WO 2004-EP1151	

2004

0209

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW,
 AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
 HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ,
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 EP 1631573 A1 20060308 EP 2004-709221

2004

0209

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
 MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK
 CN 1747961 A 20060315 CN 2004-80003778

2004

0209

PRIORITY APPLN. INFO.:

IT 2003-FI33

A

2003

0210

WO 2004-EP1151

W

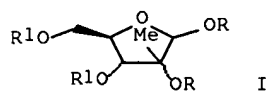
2004

0209

OTHER SOURCE(S):

CASREACT 141:157383; MARPAT 141:157383

GI



AB The present invention relates to a new process in 3 steps of regioselective acylation of 2-C-methyl-D-ribose-1,4-lactone, borohydride reduction, and anomeric acylation for the **preparation** of tetra-acyl ribofuranose derivs. I, wherein R and R1 are independently acyl groups chosen between C1-C6 alkanoyl and C7-C13 aroyl groups, useful as synthons in **synthesis** of nucleotides. Thus, regioselective benzoylation of 2-C-methyl-D-ribose-1,4-lactone with benzoyl chloride gave 3,5-di-O-benzoyl-2-C-methyl-D-ribose-1,4-lactone in 70 % yield. Reduction of 3,5-di-O-benzoyl-2-C-methyl-D-ribose-1,4-lactone with NaBH4 gave 3,5-di-O-benzoyl-2-C-methyl-D-ribose in 75 % yield. Benzoylation of 3,5-di-O-benzoyl-2-C-methyl-D-ribose gave title 1,2,3,5-tetra-O-benzoyl-2-C-methyl-D-ribose in 70% yield.

IT 15397-15-6P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation);

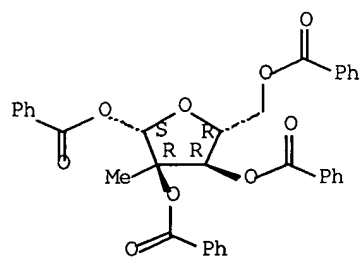
PREP (Preparation)

(process for **preparation** of ribofuranose derivs. from
 methylribopentanolactone via regioselective benzoylation and
 borohydride reduction as synthons for nucleotides)

RN 15397-15-6 HCAPLUS

CN β -D-Ribofuranose, 2-C-methyl-, tetrabenzoate (9CI) (CA INDEX
 NAME)

Absolute stereochemistry. Rotation (+).



IT 492-30-8

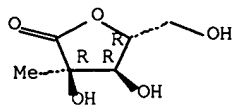
RL: RCT (Reactant); RACT (Reactant or reagent)

(process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzylation and borohydride reduction as synthons for nucleotides)

RN 492-30-8 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ -lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IC ICM C07H003-00

INCL 536124000; X53-611.0

CC 33-3 (Carbohydrates)

ST regioselective benzylation methylribopentonolactone borohydride redn ribofuranose **prepn** nucleotide synthon; nucleotide synthon ribofuranose glycoside **prepn** borohydride redn methylribopentonolactone

IT Reduction

Synthons

(process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzylation and borohydride reduction as synthons for nucleotides)

IT Nucleotides, **preparation**

RL: PNU (Preparation, unclassified); PREP (Preparation)

(process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzylation and borohydride reduction as synthons for nucleotides)

IT Glycosides

RL: SPN (Synthetic preparation); PREP (Preparation)

(process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzylation and borohydride reduction as synthons for nucleotides)

IT Benzylation

(regioselective; process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzylation and borohydride reduction as synthons for nucleotides)

IT 25137-77-3P 729596-46-7P 729596-47-8P 729596-48-9P

729596-49-0P 729596-50-3P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzylation and borohydride reduction as synthons for nucleotides)

IT 15397-15-6P 729596-51-4P 729596-52-5P 729596-53-6P
 729596-54-7P 729596-55-8P 729596-56-9P 729596-57-0P
 729596-58-1P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation);
 PREP (Preparation)

(process for **preparation** of ribofuranose derivs. from
 methylribopentanolactone via regioselective benzylation and
 borohydride reduction as synthons for nucleotides)

IT 122-01-0, p-Chlorobenzoyl chloride 492-30-8 874-60-2,
 p-Toluoyl chloride

RL: **RCT (Reactant)**; RACT (Reactant or reagent)

(process for **preparation** of ribofuranose derivs. from
 methylribopentanolactone via regioselective benzylation and
 borohydride reduction as synthons for nucleotides)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L82 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:515518 HCAPLUS Full-text

DOCUMENT NUMBER: 141:38814

TITLE: Process for the **production** of
 2'-branched nucleosides

INVENTOR(S): Storer, Richard; Moussa, Adel; Chaudhuri,
 Narayan; Waligora, Frank

PATENT ASSIGNEE(S): Idenix Cayman Limited, Cayman I.

SOURCE: PCT Int. Appl., 90 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

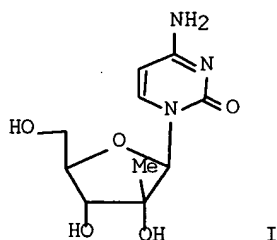
FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052899	A2	20040624	WO 2003-US39643	2003 1212
WO 2004052899	A3	20050331		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2509687	AA	20040624	CA 2003-2509687	2003 1212
AU 2003300901	A1	20040630	AU 2003-300901	2003 1212
US 2005020825	A1	20050127	US 2003-735408	2003 1212
EP 1585529	A2	20051019	EP 2003-812993	2003 1212
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			

10/735,408

CN 1744903	A	20060308	CN 2003-80109576	2003 1212
JP 2006514993	T2	20060518	JP 2005-511773	2003 1212
NO 2005003115	A	20050818	NO 2005-3115	2005 0624
PRIORITY APPLN. INFO.:			US 2002-432766P	P 2002 1212
			US 2003-466194P	P 2003 0428
			WO 2003-US39643	W 2003 1212
OTHER SOURCE(S):		CASREACT 141:38814		
GI				



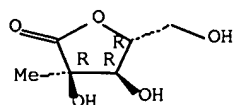
AB The present invention provides an improved process for **preparing** ss-D and ss-L 2'-C-methyl-nucleosides and 2'-C-methyl-3'-O-ester nucleosides, e.g. I, via glycosylation of methylribonolactone with nucleobases.

IT **492-30-8P 7392-74-7P 15397-15-6P 172722-75-7P**
 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (process for **production** of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)

RN 492-30-8 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ -lactone (9CI) (CA INDEX NAME)

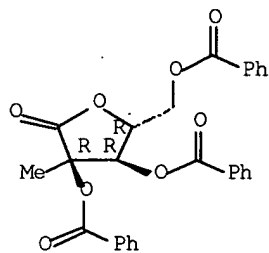
Absolute stereochemistry. Rotation (+).



RN 7392-74-7 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ -lactone, 2,3,5-tribenzoate (9CI) (CA INDEX NAME)

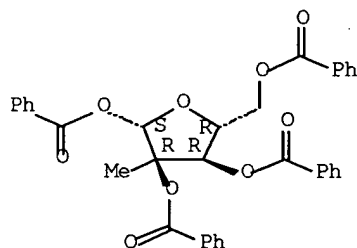
Absolute stereochemistry.



RN 15397-15-6 HCAPLUS

CN β -D-Ribofuranose, 2-C-methyl-, tetrabenzoate (9CI) (CA INDEX NAME)

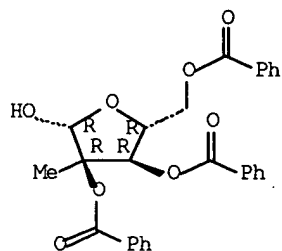
Absolute stereochemistry. Rotation (+).



RN 172722-75-7 HCAPLUS

CN β -D-Ribofuranose, 2-C-methyl-, 2,3,5-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 57-48-7, D-Fructose, reactions

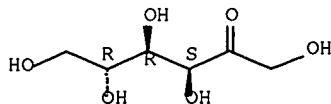
RL: RCT (Reactant); RACT (Reactant or reagent)

(process for **production** of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)

RN 57-48-7 HCAPLUS

CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM C07H
 CC 33-9 (Carbohydrates)
 ST nucleoside **prepn** methylribonolactone glycosylation
 nucleobase
 IT Glycosylation
 (process for **production** of 2'-branched nucleosides via
 glycosylation of methylribonolactone with nucleobases)
 IT Nucleosides, **preparation**
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation);
 PREP (Preparation)
 (process for **production** of 2'-branched nucleosides via
 glycosylation of methylribonolactone with nucleobases)
 IT **492-30-8P 7392-74-7P 15397-15-6P**
 20724-73-6P 23643-36-9P 31448-54-1P **172722-75-7P**
 640725-69-5P 640725-70-8P 642075-42-1P 642075-43-2P
 642075-44-3P
 RL: IMF (Industrial manufacture); **RCT (Reactant)**; SPN
 (Synthetic preparation); PREP (Preparation); RACT (Reactant or
 reagent)
 (process for **production** of 2'-branched nucleosides via
 glycosylation of methylribonolactone with nucleobases)
 IT 640725-71-9P
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation);
 PREP (Preparation)
 (process for **production** of 2'-branched nucleosides via
 glycosylation of methylribonolactone with nucleobases)
 IT **57-48-7**, D-Fructose, reactions 66-22-8, Uracil,
 reactions 71-30-7, Cytosine 72-18-4, L-Valine, reactions
 75-77-4, Trimethylsilyl chloride, reactions 999-97-3,
 Hexamethyldisilazane 4637-24-5 10416-59-8, BSA 13734-41-3
 18162-48-6, tert-Butyldimethylchlorosilane 58479-61-1,
 tert-Butyldiphenylchlorosilane 701295-32-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (process for **production** of 2'-branched nucleosides via
 glycosylation of methylribonolactone with nucleobases)

L82 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:20697 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:87662
 TITLE: 2'- and 3'-nucleoside prodrugs for treating
 Flaviviridae infections
 INVENTOR(S): Sommadossi, Jean-pierre; La Colla, Paolo;
 Storer, Richard; Gosselin, Gilles
 PATENT ASSIGNEE(S): Idenix (Cayman) Limited, Cayman I.; Centre
 National de la Recherche Scientifique;
 Universita Degli Studi di Cagliari
 SOURCE: PCT Int. Appl., 2498 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004003000 A2 20040108 WO 2003-IB3901 2003
0627

WO 2004003000 A3 20041104
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG

CA 2490200 AA 20040108 CA 2003-2490200 2003
0627

AU 2003263412 A1 20040119 AU 2003-263412 2003
0627

EP 1525209 A2 20050427 EP 2003-761749 2003
0627

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EE, HU, SK

CN 1678621 A 20051005 CN 2003-820690 2003
0627

JP 2005537242 T2 20051208 JP 2004-517162 2003
0627

CN 1761677 A 20060419 CN 2003-820501 2003
0627

WO 2005020884 A2 20050310 WO 2004-US15395 2004
0514

WO 2005020884 A3 20060622
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
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MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,
CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1656093 A2 20060517 EP 2004-776022 2004
0514

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
EE, HU, PL, SK, HR

NO 2005000466 A 20050323 NO 2005-466 2005
0127

PRIORITY APPLN. INFO.: US 2002-392350P P 2002
0628

US 2002-392351P	P	2002 0628
US 2003-466194P	P	2003 0428
US 2003-470949P	P	2003 0514
WO 2003-IB3901	W	2003 0627
WO 2004-US15395	W	2004 0514

OTHER SOURCE(S): MARPAT 140:87662

AB 2' And 3'-Prodrugs of 1'-, 2'-, 3'-, or 4'-branched β -D or β -L nucleosides, or their pharmaceutically acceptable salts and derivs., are described which are useful in the prevention and treatment of Flaviviridae infections and other related conditions. These modified nucleosides provide superior results against flaviviruses and pestiviruses, including hepatitis C virus and viruses generally that replicate through an RNA-dependent RNA reverse transcriptase. Comps., compns., methods and uses are provided for the treatment of Flaviviridae infection, including HCV infection, that include the administration of an effective amount of the prodrugs of the invention, or their pharmaceutically acceptable salts or derivs. These drugs may optionally be administered in combination or alternation with further antiviral agents to prevent or treat Flaviviridae infections and other related conditions. **Preparation** of compds. of the invention is included.

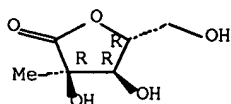
IT 492-30-8P 7392-74-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(nucleoside prodrugs for treating Flaviviridae infections)

RN 492-30-8 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ -lactone (9CI) (CA INDEX NAME)

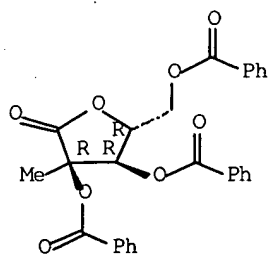
Absolute stereochemistry. Rotation (+).



RN 7392-74-7 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ -lactone, 2,3,5-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM C07H019-00
 CC 1-5 (Pharmacology)
 Section cross-reference(s): 33, 63
 ST nucleoside prodrug **prepn** Flaviviridae infection
 treatment; hepatitis C virus infection treatment nucleoside
 prodrug
 IT **492-30-8P** 4099-85-8P **7392-74-7P** 30361-17-2P
 30361-19-4P 55797-67-6P 152540-75-5P 327614-69-7P
 327614-72-2P 503543-43-9P 503543-44-0P 503543-45-1P
 503543-46-2P 503543-47-3P 503543-49-5P 503543-50-8P
 503543-51-9P 503543-55-3P 503806-04-0P 640725-69-5P
 640725-70-8P
 RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (nucleoside prodrugs for treating Flaviviridae infections)

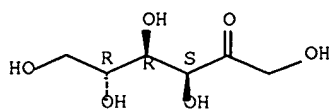
L82 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1994:412197 HCAPLUS Full-text
 DOCUMENT NUMBER: 121:12197
 TITLE: Yields of chemicals from biomass-based fast
 pyrolysis oils
 AUTHOR(S): Scott, Donald S.; Piskorz, Jan; Radlein,
 Desmond
 CORPORATE SOURCE: Dep. Chem. Eng., Univ. Waterloo, Waterloo, ON,
 N2L 3G1, Can.
 SOURCE: Energy from Biomass and Wastes (1993), 16,
 797-809
 CODEN: EBWADU; ISSN: 0277-7851
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The liquid **products** from the fast pyrolysis of poplar and spruce wood contain
 significant amts. of low mol. weight compds., especially carbonyls, with a considerable
 yield of hydroxyacetaldehyde being most noteworthy. Pretreatment of the wood before
 pyrolysis can drastically change the **product** selectivity. As an example, a dilute acid
 prehydrolysis to remove hemicelluloses allows the cellulose in wood to be depolymd. to
 anhydrosugars in good yields.

IT **57-48-7P**, Fructose, **preparation**
1333-74-0P, Hydrogen, **preparation**
 RL: FORM (Formation, nonpreparative); PREP (Preparation)
 (**formation** of, in pyrolysis of wood)

RN 57-48-7 HCAPLUS
 CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 1333-74-0 HCAPLUS
 CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H-H

CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
 Section cross-reference(s): 43
 IT Charcoal
 RL: PREP (Preparation)
 (production of, from poplar and spruce)
 IT 50-00-0P, Formaldehyde, **preparation** 50-99-7P, Glucose,
preparation 57-48-7P, Fructose,
preparation 64-18-6P, Formic acid,
preparation 64-19-7P, Acetic acid, **preparation**
 67-56-1P, Methanol, **preparation** 74-82-8P, Methane,
preparation 74-84-0P, Ethane, **preparation**
 74-85-1P, Ethylene, **preparation** 75-07-0P,
 Acetaldehyde, **preparation** 78-98-8P, Methylglyoxal
 98-01-1P, Furfural, **preparation** 107-21-1P, Ethylene
 glycol, **preparation** 107-22-2P, Glyoxal 116-09-6P,
 Acetol 124-38-9P, Carbon dioxide, **preparation**
 141-46-8P, Hydroxyacetaldehyde 498-07-7P, Levoglucosan
 630-08-0P, Carbon monoxide, **preparation**
 1333-74-0P, Hydrogen, **preparation** 7425-74-3P
 26895-04-5P, Methylfurfural 35405-71-1P, Cellobiosan
 RL: FORM (Formation, nonpreparative); PREP (Preparation)
 (formation of, in pyrolysis of wood)

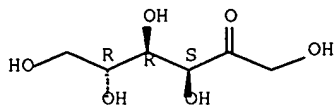
L82 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1994:134959 HCAPLUS Full-text
 DOCUMENT NUMBER: 120:134959
 TITLE: **Preparation** and catalytic
 hydrogenolysis of some ω -haloalkyl
 β -D-fructopyranosides; a convenient route
 to simple alkyl β -D-fructopyranosides
 AUTHOR(S): Raaijmakers, Harry W. C.; Eveleens, Susan M.;
 Arnouts, Esther G.; Zwanenburg, Binne;
 Chittenden, Gordon J. F.
 CORPORATE SOURCE: NSR Cent. Mol. Struct. Des. Synth., Univ.
 Nijmegen, Nijmegen, 6525 ED, Neth.
 SOURCE: Recueil des Travaux Chimiques des Pays-Bas
 (1993), 112(9), 511-14
 CODEN: RTCPA3; ISSN: 0165-0513
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 120:134959

AB The acid-catalyzed reactions of D-fructose, sucrose and inulin with ω -haloalkyl alcs.
 yield the corresponding β -D-fructopyranosides. Catalytic hydrogenolysis of these
 glycosides provides a simple route to some crystalline alkyl β -D-fructopyranosides of
 potential biol. interest.
 IT 1333-74-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrogenolysis, of ω -haloalkyl β -D-
 fructopyranosides)
 RN 1333-74-0 HCAPLUS
 CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H-H

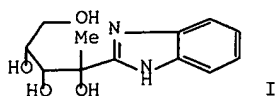
IT 57-48-7P, D-Fructose, **preparation**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (reactant, in **preparation** of alkyl fructopyranoside)
 RN 57-48-7 HCAPLUS
 CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



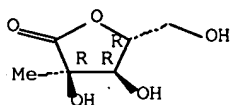
CC 33-3 (Carbohydrates)
 IT Glycosidation
 (of ω-haloalkyl alcs. in **synthesis** of alkyl
 β-D-fructopyranosides)
 IT Glycosides
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (**preparation** of alkyl β-D-fructopyranosides)
 IT 1333-74-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrogenolysis, of ω-haloalkyl β-D-
 fructopyranosides)
 IT 84543-36-2P 153228-57-0P 153228-58-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (**preparation** and catalytic hydrogenolysis of)
 IT 604-68-2P 4208-77-9P 53422-38-1P 53431-77-9P 67884-27-9P
 99042-47-4P 153228-56-9P 153228-59-2P 153228-60-5P
 153228-61-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (**preparation** of)
 IT 627-30-5, 3-Chloro-1-propanol 928-51-8, 4-Chloro-1-butanol
 9005-80-5, Inulin 15219-29-1 20880-92-6 25018-67-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant, in **preparation** of alkyl fructopyranoside)
 IT 57-48-7P, D-Fructose, **preparation** 57-50-1P,
 Sucrose, **preparation** 107-07-3P, 2-Chloroethanol,
preparation 540-51-2P, 2-Bromoethanol
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (reactant, in **preparation** of alkyl fructopyranoside)

L82 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1991:82362 HCAPLUS Full-text
 DOCUMENT NUMBER: 114:82362
 TITLE: **Synthesis** of α-D-
 glucosaccharinic acid derivatives
 AUTHOR(S): Gakhokidze, R. A.; Sidamonidze, N. N.
 CORPORATE SOURCE: Tbilis. Gos. Univ., Tbilisi, USSR
 SOURCE: Izvestiya Akademii Nauk Gruzinskoi SSR, Seriya
 Khimicheskaya (1990), 16(2), 115-20
 CODEN: IGSKDH; ISSN: 0132-6074
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 OTHER SOURCE(S): CASREACT 114:82362
 GI



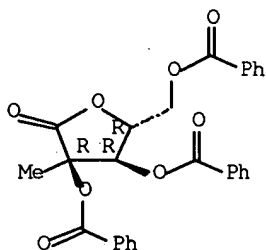
- AB α -D-Glucosaccharinic acid was **prepared** from D-glucose via a stereoselective reaction with lead hydroxide to give the threo-isomer as its Ca salt which was easily converted to the 1,4-lactone. Addnl. obtained were the amide, hydrazide, benzimidazole I and acylated derivs.
- IT **492-30-8P**
 RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and reactions of)
- RN 492-30-8 HCAPLUS
- CN D-Ribonic acid, 2-C-methyl-, γ -lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



- IT **7392-74-7P**
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
- RN 7392-74-7 HCAPLUS
- CN D-Ribonic acid, 2-C-methyl-, γ -lactone, 2,3,5-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- CC 33-8 (Carbohydrates)
 Section cross-reference(s): 28
- IT Monosaccharides
 RL: SPN (Synthetic preparation); PREP (Preparation) (derivs., **preparation** of glucosaccharinic acid and its derivs.)
- IT **492-30-8P** 96029-04-8P
 RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and reactions of)
- IT **7392-74-7P** 23669-83-2P 108272-85-1P 131924-09-9P

131924-10-2P 131924-11-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L82 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1990:476599 HCAPLUS Full-text
 DOCUMENT NUMBER: 113:76599
 TITLE: Use and regeneration of reagents using coupled
 reactions and perm-selective barriers
 INVENTOR(S): Van Eikeren, Paul
 PATENT ASSIGNEE(S): Bend Research, Inc., USA
 SOURCE: Eur. Pat. Appl., 83 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 349204	A2	19900103	EP 1989-306341	1989 0623
EP 349204	A3	19910807		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 02131586	A2	19900521	JP 1989-164066	1989 0628
PRIORITY APPLN. INFO.:		US 1988-212606	A	1988 0628

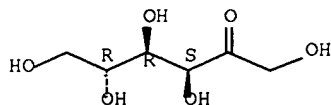
AB A method for using and regenerating expensive reactive group transfer reagents in apparatus containing 2 sections separated by a semipermeable membrane is claimed. Thus, D-glucose was oxidized to D-gluconic acid indirectly in an apparatus also containing KI. Glucose and KI solns. were placed in 1 section of the apparatus and NaClO solution in the other. I- passed through the semipermeable membrane and was oxidized to I₂ by the NaClO. I₂ diffused in the other direction, oxidizing glucose to gluconate in the 1st compartment while I- was regenerated.

IT 1333-74-0, Hydrogen, biological studies
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in coupled synthetic reactions separated by semipermeable
 membrane)
 RN 1333-74-0 HCAPLUS
 CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H-H

IT 57-48-7P, D-Fructose, **preparation**
 RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP
 (Preparation)
 (manufacture of, by coupled reactions separated by
 semipermeable membrane)
 RN 57-48-7 HCAPLUS
 CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- IC ICM B01J014-00
ICS C12P001-00
- CC 16-1 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 9
- IT Peptides, **preparation**
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP
(Preparation)
(**manufacture** of, by coupled reactions separated by semipermeable membrane)
- IT **Synthesis**
(bioorg., by coupled reactions separated by semipermeable membrane)
- IT 50-70-4, D-Sorbitol, biological studies 50-99-7, Glucose, biological studies 53-57-6, NADPH 56-81-5, Glycerol, biological studies 57-56-7, Semicarbazide 57-60-3, Pyruvate, biological studies 58-64-0, Adenosine diphosphate, biological studies 58-68-4, NADH 58-86-6, Xylose, biological studies 67-63-0, 2-Propanol, biological studies 67-64-1, Acetone, biological studies 75-07-0, Acetaldehyde, biological studies 108-93-0, Cyclohexanol, biological studies 110-16-7, Maleic acid, biological studies 152-58-9, 11-Deoxycortisol 156-06-9, Phenylpyruvic acid 288-32-4, Imidazole, biological studies 328-50-7 374-01-6, 1,1,1-Trifluoro-2-propanol 684-16-2, Hexafluoroacetone 853-39-4, Decafluorobenzophenone 1192-62-7, 2-Acetylfuran 1313-82-2, Sodium sulfide, biological studies 1333-74-0, Hydrogen, biological studies 2487-96-9D, polymers 7429-90-5, Aluminum, biological studies 7681-52-9, Sodium hypochlorite 7697-37-2, Nitric acid, biological studies 7722-84-1, Hydrogen peroxide, biological studies 7775-09-9, Sodium chlorate 9027-42-3 9028-14-2, Glycerol dehydrogenase 9028-22-2, D-Sorbitol dehydrogenase 9028-36-8, D-Lactate dehydrogenase 9029-06-5, L-Alanine dehydrogenase 9029-12-3, Glutamate dehydrogenase 9029-66-7, Steroid 11- β -hydroxylase 9031-72-5, Alcohol dehydrogenase 10457-99-5, 3-Dehydrocarnitine 10588-01-9 15681-89-7, Sodium borodeuteride 15753-50-1 16721-80-5, Sodium bisulfide 16940-66-2 20312-36-1 20461-54-5, Iodide, biological studies 20816-12-0, Osmium tetroxide 70599-31-4 95829-40-6, Xylose reductase
RL: RCT (Reactant); RACT (Reactant or reagent)
(in coupled synthetic reactions separated by semipermeable membrane)
- IT 50-21-5P, D,L-Lactic acid, **preparation** 50-23-7P
56-41-7P, L-Alanine, **preparation** 56-65-5P, Adenosine triphosphate, **preparation** 56-86-0P, L-Glutamic acid, **preparation** 57-48-7P, D-Fructose, **preparation** 63-91-2P, Phenylalanine, **preparation** 87-69-4P, **preparation** 87-99-0P, Xylitol 96-26-4P, Dihydroxyacetone 526-95-4P, D-Gluconic acid 541-15-1P, L-Carnitine 1624-36-8P, Ethan-1-d-ol 1859-09-2P, Ethan-1,1-d2-ol 6939-71-5P 112653-32-4P
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP
(Preparation)
(**manufacture** of, by coupled reactions separated by semipermeable membrane)

L82 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:156740 HCAPLUS Full-text
DOCUMENT NUMBER: 112:156740
TITLE: **Production** of unsaturated fatty

10/735,408

INVENTOR(S): acids or hydrocarbons by Rhodococcus
 Itoh, Susumu; Koike, Kenzo; Takaiwa, Mikio
 PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology,
 Japan
 SOURCE: Eur. Pat. Appl., 16 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 319123	A2	19890607	EP 1988-308091	1988 0901
EP 319123	A3	19900801		
EP 319123	B1	19950517		
R: BE, CH, DE, FR, GB, LI, NL, SE				
JP 01144982	A2	19890607	JP 1987-300057	1987 1130
JP 04012718	B4	19920305		
JP 01144983	A2	19890607	JP 1987-300058	1987 1130
JP 02008715	B4	19900226		
PRIORITY APPLN. INFO.:			JP 1987-300057	A 1987 1130
			JP 1987-300058	A 1987 1130

OTHER SOURCE(S): MARPAT 112:156740

AB A process is developed for converting a fatty acid or hydrocarbon into the corresponding unsatd. fatty acid or hydrocarbon by Rhodococcus, the unsatd. compound subsequently being excreted into the culture medium. Unsatd. fatty acids are used in perfumes, drugs, coatings, surfactants, and cosmetics, while unsatd. hydrocarbons are used in pheromones, perfumes, and drugs. Thus, 1 g of cells of Rhodococcus KSM-B-3M was suspended in 20 mL of a 0.25M phosphate buffer (pH 7.0) containing 1% monosodium glutamate, 0.1% thiamine. HCl, and 0.1% MgSO₄. Then 4 mL of Pr hexadecanoate was added thereto, and the resulting mixture was allowed to react at 26° for 2 days under shaking. After completion of the reaction, it was determined that the major **product formed** was Pr cis-6-hexadecenoate.

IT 1333-74-0

RL: BIOL (Biological study)
 (dehydrogenation, of fatty acids and hydrocarbons, with Rhodococcus)

RN 1333-74-0 HCAPLUS

CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H-H

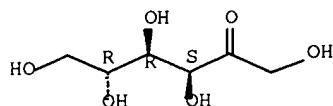
IT 57-48-7P, Fructose, preparation

RL: PREP (Preparation)
 (manufacture of unsatd. fatty acid or hydrocarbon with Rhodococcus in medium containing)

RN 57-48-7 HCAPLUS

CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- IC ICM C12P007-64 .
ICS C12P005-02; C12P007-04; C12P013-00
- CC 16-5 (Fermentation and Bioindustrial Chemistry)
- ST Rhodococcus **manuf** unsatd fatty acid hydrocarbon
- IT Coating materials
Cosmetics
Surfactants
(**manufacture** of, unsatd. fatty acids for, microbial **manufacture** of)
- IT Perfumes and Essences
Pharmaceuticals
(**manufacture** of, unsatd. fatty acids or hydrocarbons for, microbial **manufacture** of)
- IT Rhodococcus
(unsatd. fatty acids and hydrocarbons **manufacture** with)
- IT Plant hormones and regulators
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP
(Preparation)
(pheromones, **manufacture** of, microbial, unsatd. hydrocarbons for)
- IT Fatty acids, biological studies
Hydrocarbons, biological studies
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP
(Preparation)
(unsatd., **manufacture** of, with Rhodococcus)
- IT **1333-74-0**
RL: BIOL (Biological study)
(dehydrogenation, of fatty acids and hydrocarbons, with Rhodococcus)
- IT 147-81-9, Arabinose 147-85-3, Proline, **preparation**
3615-41-6, Rhamnose 50-70-4P, Sorbitol, **preparation**
50-99-7P, Glucose, **preparation** 56-40-6P, Glycine, **preparation** 56-84-8P, Aspartic acid, **preparation**
56-86-0P, Glutamic acid, **preparation** 57-48-7P, Fructose, **preparation** 58-86-6P, Xylose, **preparation** 59-43-8P, Thiamine, **preparation**
60-18-4P, Tyrosine, **preparation** 64-19-7P, Acetic acid, **preparation** 69-65-8P, Mannitol 72-19-5P, Threonine, **preparation** 73-32-5P, Isoleucine, **preparation**
77-92-9P, **preparation** 87-89-8P, Inositol 110-15-6P, Butanedioic acid, **preparation** 7487-88-9P, Magnesium sulfate, **preparation** 7785-87-7P, Manganese sulfate
RL: BIOL (Biological study)
(**manufacture** of unsatd. fatty acid or hydrocarbon with Rhodococcus in medium containing)
- IT 1120-25-8P 1779-13-1P, cis-9-Octadecene 7239-23-8P
16507-61-2P 25447-84-1P, Tetradeca-di-ene 28929-03-5P, Octadeca-di-ene 37822-83-6P, Hexadecenol 41446-62-2P, cis-5-Tetradecene 54264-03-8P, Hexadeca-di-ene 59004-73-8P
62706-20-1P 63541-46-8P 121749-28-8P 126171-75-3P
126171-76-4P 126171-77-5P 126171-78-6P 126171-79-7P
126171-80-0P 126207-57-6P 126207-58-7P, Heptadecenitrile
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP
(Preparation)
(**manufacture** of, with Rhodococcus)

L82 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1989:554300 HCAPLUS Full-text
 DOCUMENT NUMBER: 111:154300
 TITLE: **Preparation** of D-mannitol by
 isomerization and hydrogenation of D-glucose
 INVENTOR(S): Komiyama, Shinji; Takizawa, Satoshi; Yano,
 Shigenobu
 PATENT ASSIGNEE(S): DIC Hercules, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63258437	A2	19881025	JP 1987-90913	1987 0415
JP 07037401	B4	19950426		
PRIORITY APPLN. INFO.:			JP 1987-90913	1987 0415

OTHER SOURCE(S): MARPAT 111:154300

AB A process for **preparing** D-mannitol (I) involves isomerization of D-glucose (II) by heating a solution of II in the presence of an amine or its derivative NR₁R₂R₃ (R₁, R₂, R₃ = H, C₁-18 alkyl, hydroxyalkyl, alkoxyalkyl, arylalkyl) and a salt of a metal selected from Ca, Sr, La, Ni, Ce, Co, Pr, Nd, Y, and In to give a sugar solution containing II, D-mannose (III), and D-fructose (IV), high pressure hydrogenation of the solution in the presence of a hydrogenation catalyst to give I and D-sorbitol (V), and separation of I. A solution of 40.8 CaCl₂·2H₂O and 50.0 D-glucose in 200 g MeOH was heated 10 min at 53° in the presence of 24.3 g Et₂N to give a sugar solution containing 35.0 D-mannose, 42.9 D-fructose, and 15.1% D-glucose. Et₂N was distilled in vacuo and the residue was adjusted to pH 7.8 and a total weight of 500 g with H₂O and concentrated HCl and placed in an autoclave. Raney Ni (3 g) was added and the mixture was subjected to reduction at 115° and H 60 kg/cm² for 90 min to give, after coding and removing the catalyst, a clear and colorless filtrate containing 60.0 I and 30.2% V. The filtrate was adjusted to pH 6.5 by concentrated HCl and desalted by electrodialysis to give a solution containing 5 ppm Ca²⁺ with no Et₂N·HCl detected which was concentrated and cooled to give 26 g I.

IT 1333-74-0

RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrogenation, of glucose isomerization **products**, in
preparation of mannitol)

RN 1333-74-0 HCAPLUS

CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H-H

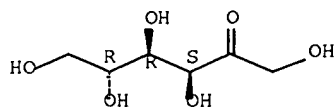
IT 57-48-7P, D-Fructose, reactions

RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (**preparation** and hydrogenation of, in **preparation** of
 mannitol and sorbitol)

RN 57-48-7 HCAPLUS

CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- IC ICM C07C031-26
ICS C07C029-132
ICA B01D013-02
CC 33-6 (Carbohydrates)
IT Isomerization catalysts
(amines or derivs containing metal halides, for conversion of glucose into mannose and fructose in **preparation** of mannitol)
IT Isomerization
(of glucose into mannose and fructose in **preparation** of mannitol)
IT Hydrogenation
(of glucose isomerization **products**, in **prepn** of mannitol)
IT 7440-02-0, Raney nickel, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalyst, for hydrogenation of mannose and fructose mixture, in **preparation** of mannitol)
IT 1333-74-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrogenation, of glucose isomerization **products**, in **preparation** of mannitol)
IT 50-99-7, D-Glucose, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(isomerization of, into mannose and fructose, in **prepn** of mannitol and sorbitol)
IT 3458-28-4P, D-Mannose
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and hydrogenation of, in **preparation** of mannitol)
IT 57-48-7P, D-Fructose, reactions
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and hydrogenation of, in **preparation** of mannitol and sorbitol)
IT 50-70-4P, D-Sorbitol, **preparation** 69-65-8P, D-Mannitol
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of, by isomerization and hydrogenation of glucose)

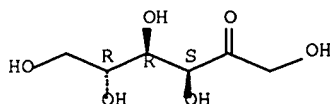
L82 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:463142 HCAPLUS Full-text
DOCUMENT NUMBER: 109:63142
TITLE: Electrocatalytic oxidation of glucose at platinum in alkaline medium: On the role of temperature
AUTHOR(S): Yei, L. H. Essis; Beden, B.; Lamy, C.
CORPORATE SOURCE: Lab. Chim. 1, Univ. Poitiers, Poitiers, 86022, Fr.
SOURCE: Journal of Electroanalytical Chemistry and Interfacial Electrochemistry (1988), 246(2), 349-62
CODEN: JEIEBC; ISSN: 0022-0728
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The electrocatalytic oxidation of glucose at Pt in alkaline medium was studied using electrochem. chromatog. and polarimetric techniques. The expts. lead to the conclusion that the particular reactivity of glucose at low temperature is due to the release of the H belonging to the hemiacetal group. However, no evidence for a difference of reactivity between the 2 anomers, α and β , was found. The anomalous temperature behavior of the glucose electrooxidn. was interpreted in terms of the slow transformation process of glucose into fructose. Such an inhibiting effect can be reduced greatly by lowering the temperature

IT **57-48-7P, Fructose, preparation**
 RL: PREP (Preparation)
 (by transformation of glucose, electrocatalytic oxidation at platinum and alkaline medium in relation to)

RN 57-48-7 HCAPLUS
 CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **1333-74-0P, Hydrogen, preparation**
 RL: PREP (Preparation)
 (evolution of, in electrochem. oxidation of glucose on platinum electrode in alkaline solution for)

RN 1333-74-0 HCAPLUS
 CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H-H

CC 72-2 (Electrochemistry)
 Section cross-reference(s): 22, 33

IT Isomerization
 (of glucose, fructose **formation** in, electrochem. oxidation in relation to)

IT **57-48-7P, Fructose, preparation**
 RL: PREP (Preparation)
 (by transformation of glucose, electrocatalytic oxidation at platinum and alkaline medium in relation to)

IT **1333-74-0P, Hydrogen, preparation**
 RL: PREP (Preparation)
 (evolution of, in electrochem. oxidation of glucose on platinum electrode in alkaline solution for)

IT 67-47-0P
 RL: PREP (Preparation)
 (**preparation** of, during electrochem. oxidation of glucose of platinum electrode in alkaline solns.)

L82 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1987:425941 HCAPLUS Full-text
 DOCUMENT NUMBER: 107:25941
 TITLE: The composition of oils obtained by the fast pyrolysis of different woods
 AUTHOR(S): Piskorz, J.; Scott, D. S.
 CORPORATE SOURCE: Dep. Chem. Eng., Univ. Waterloo, Waterloo, ON, N2L 3G1, Can.
 SOURCE: Preprints of Papers - American Chemical Society, Division of Fuel Chemistry (1987),

32(2), 215-22

CODEN: ACFPAI; ISSN: 0569-3772

DOCUMENT TYPE:

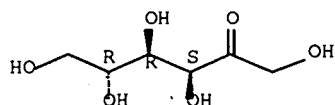
Journal

LANGUAGE:

English

- AB A single-phase homogeneous **product** containing 15-25% water was obtained by fast pyrolysis of 4 different woods. The **product** is a complex mixture of chems. and has potential as substitute fuel oil. The water-insol. fraction of the **product** is derived from lignin, and the water-soluble fraction originates from carbohydrates. The major classes of chems. differentiated in the **product** are sugars and anhydrosugars, carbonyl and hydroxycarbonyl compds., acids (HCO₂H and AcOH), and pyrolytic lignin.
- IT 57-48-7P, Fructose, **preparation**
1333-74-0P, Hydrogen, **preparation**
RL: PREP (Preparation)
(**formation** of, in wood pyrolysis)
- RN 57-48-7 HCAPLUS
- CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 1333-74-0 HCAPLUS

CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H-H

- CC 52-1 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 43, 44, 45
- IT Charcoal
Oligosaccharides
RL: PREP (Preparation)
(**formation** of, in wood pyrolysis)
- IT Poplar
Wood
(pyrolysis of, **product** yields in)
- IT Hydrocarbons, **preparation**
RL: PREP (Preparation)
(C3-4, **formation** of, in wood pyrolysis)
- IT Carbohydrates and Sugars, **preparation**
RL: PREP (Preparation)
(anhydro, **formation** of, in wood pyrolysis)
- IT Fuel gas **manufacturing**
(pyrolysis, of wood, **product** yields in, wood type in relation to)
- IT Maple
(A. rubrum, pyrolysis of, **product** yields in)
- IT Spruce
(P. glauca, pyrolysis of, **product** yields in)
- IT 50-00-0P, Formaldehyde, **preparation** 50-99-7P, Glucose, **preparation** 57-48-7P, Fructose, **preparation** 64-18-6P, Formic acid, **preparation** 64-19-7P, Acetic acid, **preparation** 67-56-1P, Methanol, **preparation** 74-82-8P, Methane, **preparation** 74-84-0P, Ethane, **preparation** 74-85-1P, Ethylene, **preparation** 75-07-0P, Acetaldehyde, **preparation** 78-98-8P, Methylglyoxal

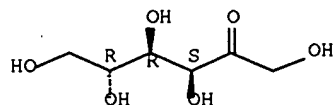
107-21-1P, Ethylene glycol, **preparation** 107-22-2P,
 Glyoxal 116-09-6P, Acetol 124-38-9P, Carbon dioxide,
preparation 141-46-8P, Hydroxyacetaldehyde 498-07-7P,
 Levoglucosan 630-08-0P, Carbon monoxide, **preparation**
 1333-74-0P, Hydrogen, **preparation** 7425-74-3P
 9005-53-2DP, Lignin, pyrolyzed 35405-71-1P
 RL: PREP (Preparation)
 (formation of, in wood pyrolysis)

L82 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1976:455872 HCAPLUS Full-text
 DOCUMENT NUMBER: 85:55872
 TITLE: Hydrogen evolving systems. 1. The
formation of molecular hydrogen from
 aqueous suspensions of iron(II) hydroxide and
 reactions with reducible substrates, including
 molecular nitrogen
 AUTHOR(S): Schrauzer, G. N.; Guth, T. D.
 CORPORATE SOURCE: Revelle Coll., Univ. California, La Jolla, CA,
 USA
 SOURCE: Journal of the American Chemical Society
 (1976), 98(12), 3508-13
 CODEN: JACSAT; ISSN: 0002-7863
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The evolution of H from mildly alkaline suspensions of Fe(OH)₂ appears to involve
 elemental Fe as the intermediate, which is **generated** by way of a base-induced
 disproportionation of Fe(OH)₂. The disproportionation reaction also occurs in strongly
 alkaline suspensions of Fe(OH)₂; under these conditions H₂ is not **formed** and elemental
 Fe accumulates in the ppts. instead. Disordered modifications of Fe(OH)₂ seem to exist
 which undergo disproportionation preferentially. The reactive modifications of Fe(OH)₂
 are **formed** in higher relative concns. or are stabilized by weak complexing or
 dispersing agents such as sugars and polyhydric alcs., as well as to some extent by
 Mg(OH)₂ or glycine. The disproportionation of Fe(OH)₂ is significantly stimulated by
 uv light as evidenced by the increased yields of H₂ in uv-light exposed samples. The
 evolution of H₂ is also stimulated by copptn. of Fe(OH)₂ with Ni(OH)₂. A variety of
 reducible substrates, e.g., C₂H₂, C₂H₄, CO, and N₂, act as inhibitors of H₂ **formation**.
 Reduction of these substrates occurs in a manner typical of reactions with highly
 dispersed elemental Fe. With mol. N, hydrazine and NH₃ are **formed**; both **products** were
 identified by specific colorimetric tests as well as by using 30N2-enriched N as the
 substrate and subsequent mass-spectrographic anal.

IT 57-48-7P, uses and miscellaneous
 RL: PREP (Preparation); USES (Uses)
 (effects on hydrogen **formation** from alkaline suspensions
 of ferrous hydroxide)
 RN 57-48-7 HCAPLUS
 CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 1333-74-0P, **preparation**
 RL: PREP (Preparation)
 (from alkaline suspensions of ferrous hydroxide)
 RN 1333-74-0 HCAPLUS
 CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H-H

- CC 78-1 (Inorganic Chemicals and Reactions)
- ST hydrogen **formation** iron hydroxide disproportionation; UV
iron hydroxide disproportionation; nitrogen redn iron hydroxide
- IT Ultraviolet light, chemical and physical effects
(on hydrogen **formation** from ferrous hydroxide
disproportionation)
- IT 1309-42-8P 12054-48-7P 13327-32-7P 18933-05-6P 21645-51-2P
50-99-7P, uses and miscellaneous 56-40-6P, uses and
miscellaneous 56-81-5P, uses and miscellaneous 57-48-7P
, uses and miscellaneous 57-50-1P, uses and miscellaneous
107-21-1P, uses and miscellaneous
RL: PREP (Preparation)
(effects on hydrogen **formation** from alkaline suspensions
of ferrous hydroxide)
- IT 74-85-1P, uses and miscellaneous 74-86-2P, uses and
miscellaneous 74-88-4P 75-03-6P 630-08-0P, uses and
miscellaneous 10024-97-2P, uses and miscellaneous
RL: PREP (Preparation); USES (Uses)
(effects on hydrogen **formation** from ferrous
hydroxide-glucose suspensions)
- IT 7439-89-6P, **preparation**
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(**formation** of, in base-induced disproportionation of
ferrous hydroxide)
- IT 1333-74-0P, **preparation**
RL: PREP (Preparation)
(from alkaline suspensions of ferrous hydroxide)
- IT 18624-44-7P
RL: PREP (Preparation)
(hydrogen **formation** from alkaline suspensions of)

L82 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1969:97108 HCAPLUS Full-text
DOCUMENT NUMBER: 70:97108
TITLE: Nucleic acid components and their analogs.
CXX. 2-C-Methyl-D-ribose and its derivatives
AUTHOR(S): Novak, Jiri; Sorm, Frantisek
CORPORATE SOURCE: Ceskoslov. Akad. Ved, Prague, Czech.
SOURCE: Collection of Czechoslovak Chemical
Communications (1969), 34(3), 857-66
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English

- AB A mixture of 5 ml. Ac2O and 15 ml. C5H5N treated with ice-cooling with 1.4 g. 2-C-methyl-D-ribonolactone (I) in 15 ml. C5H5N, the whole kept at room temperature overnight, poured onto ice, and extracted with CHCl3 gave 1.75 g. I 2,3,5-triacetate, b0.01 120° (bath temperature), $[\alpha]_D^{20}$ 146.5° (c 0.51, EtOH). A solution of 1.6 g. I in 5 ml. C5H5N added to a mixture **prepared** at 0° from 4.3 g. BzCl and 15 ml. C5H5N, the whole kept at room temperature overnight, heated to 80° 1 hr., diluted with 1 ml. MeOH, evaporated, and extracted with CHCl3 gave 3.8 g. I 2,3,5-tribenzoate, m. 139-40° (MeOH) (sublimation), $[\alpha]_D^{20}$ 122.5° (c 0.507, CHCl3). A suspension of 0.8 g. I, 10 ml. anhydrous Me2CO, 1 ml. HC(OEt)3, and 0.05 ml. 20% ethanolic HCl shaken at room temperature 8 hrs. and neutralized with Ag2CO3 gave 0.86 g. I 2,3-O-isopropylidene derivative, b0.05 120° (bath temperature), m. 57-8° (sublimation), $[\alpha]_D^{20}$ -44.0° (c 0.54, EtOH). A stirred mixture of 15 g. I, 500 ml. 0.001N H2SO4, and 1500 ml. Dowex 50 (H+) ion-exchange resin treated in one lot with 1000 g. 2.5% Na amalgam (the temperature rose spontaneously to 40°), the whole kept 1 hr., filtered, and the filtrate passed through a column of Dowex 1 (HCO3-) ion-exchange resin gave 11 g. 2-C-methyl-D-ribose (II), m. 93-5° (iso-PrOH), $[\alpha]_D^{20}$ -23.6° (after 15 min.) (c 0.622, H2O); II N-benzyl-N-phenylhydrazine m. 169-72° (MeOH), $[\alpha]_D^{20}$ 6.3° (c 0.207, EtOH). II was **prepared** also by reduction of I with aqueous NaBH4. A mixture of 2 g. II, 100 ml.

MeOH, and 5 ml. 20% methanolic HCl refluxed 5 hrs., and neutralized with Dowex 1 (OH-) ion-exchange resin gave 1.2 g. Me 2-C-methyl- β -D-ribofuranoside (III), m. 109° (MeOH), $[\alpha]_D^{20}$ -82.1° (c 0.504, EtOH). Aqueous III refluxed with Dowex 50 (H+) ion-exchange resin gave II. A suspension of 0.9 g. III, 10 ml. Me₂CO, 1 ml. HC(OEt)₃, and 3 drops 20% methanolic HCl shaken at room temperature overnight and neutralized with Ag₂CO₃ gave 0.9 g. III 2,3-O-iso-propylidene derivative, b_{0.05} 60° (bath temperature), $[\alpha]_D^{20}$ -84.0° (c 0.512, EtOH). A solution of 0.5 g. III in 5 ml. C₅H₅N added dropwise at 0° to a mixture of 10 ml. C₅H₅N and 3 ml. Ac₂O, the whole poured onto ice, and extracted with CHCl₃ gave 0.2 g. III 3,5-diacetate, b_{0.01} 120-5° (bath temperature), $[\alpha]_D^{20}$ -43.6° (c 0.559, EtOH). The preceding reaction mixture refluxed 5 hrs. gave 0.7 g. III 2,3,5-triacetate (IV), m. 60° (sublimation), $[\alpha]_D^{20}$ -9.8° (c 0.48, EtOH). A solution of III in C₅H₅N treated at 0° with BzCl and the whole refluxed 5 hrs. gave 65% III 3,5-dibenzoate, b_{0.01} 180-5° (bath temperature), $[\alpha]_D^{20}$ -19.9° (c 0.619, EtOH). The attempted preparation of III tribenzoate failed even under forced conditions. A solution of IV in MePh saturated at 0° with dry HBr, the mixture kept 8 hrs. at 0° and evaporated, the residue dissolved in dioxane, and the solution shaken with Ag₂CO₃ gave syrupy 3,5-di-O-acetyl-2-C-methyl-D-ribose and a syrupy mixture of anomeric 2,3,5-tri-O-acetyl-2-C-methyl-D-ribofuranoses. A mixture of 14 ml. Ac₂O and 1.6 g. 70% aqueous HClO₄ treated at 0° with 1.5 g. IV in 5 ml. AcOH, the whole heated at 60° 2 hrs., treated at 20° with 1 g. NaOAc in 15 ml. AcOH, poured onto ice, and extracted with CHCl₃ gave 0.4 g. 1,2,3,5-tetra-O-acetyl-2-C-methyl- β -D-ribofuranose (V), m. 156° (sublimation), $[\alpha]_D^{20}$ -18.8° (c 0.499, EtOH). Similarly, 0.9 g. III gave 0.31 g. V. A suspension of 1.6 g. II in 5 ml. PhCH₂OH saturated with dry HCl gave 0.4 g. benzyl 2-C-methyl- β -D-furanoside (VI), m. 99-100° (MeOH), $[\alpha]_D^{20}$ -187° (c 0.454, EtOH), and 0.15 g. of the α -D anomer, m. 125° (C₆H₆), $[\alpha]_D^{20}$ -108.2° (c 0.338, EtOH). A mixture of 0.5 g. VI, 5 ml. C₅H₅N, and 2 ml. Ac₂O refluxed 6 hrs. gave 0.59 g. benzyl 2,3,5-tri-O-acetyl-2-C-methyl- β -D-ribofuranoside, m. 112° (cyclohexane), $[\alpha]_D^{20}$ -75.3° (c 0.503, EtOH), the hydrogenolysis of which in EtOH over 10% Pd on C followed by acetylation with Ac₂O in C₅H₅N yielded 70% V. Acetylation of 0.16 g. II in AcOH with Ac₂O, and 70% aqueous HClO₄ gave 0.04 g. V. A mixture of II, Ac₂O, and C₅H₅N refluxed 5 hrs. gave 0.1 g. V. Treatment of II with PhCH₂OCOC₂H₅ gave 31% 2-C-methyl-D-ribofuranose 2,3-carbonate (VII) 1,5-di-O-benzyloxycarbonyl derivative, m. 88° (Et₂O), $[\alpha]_D^{20}$ -50.3° (c 0.280, EtOH), the hydrogenolysis of which in MeOH over prereduced PdCl₂ yielded 87% VII, m. 113° (EtOAc).

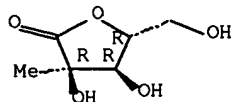
IT 492-30-8P 7392-74-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 492-30-8 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ -lactone (9CI) (CA INDEX NAME)

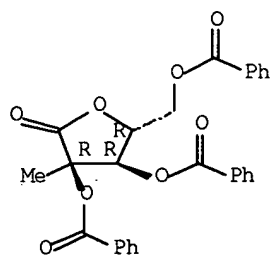
Absolute stereochemistry. Rotation (+).



RN 7392-74-7 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ -lactone, 2,3,5-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 33 (Carbohydrates)

IT 251-34-3DP, Furo[3,4-d]-1,3-dioxole, sugar derivs.

492-30-8P 7392-74-7P 23661-04-3P 23661-05-4P

23669-83-2P 23669-84-3P 23669-85-4P 23669-86-5P

23669-87-6P 23669-88-7P 23669-89-8P 23669-90-1P

23669-91-2P 23669-92-3P 23669-93-4P 23669-94-5P

23669-95-6P 23707-14-4P 23709-41-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L82 ANSWER 17 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1966:84833 HCAPLUS Full-text

DOCUMENT NUMBER: 64:84833

ORIGINAL REFERENCE NO.: 64:15965h,15966a-c

TITLE: D-Glucosaccharinic acids

AUTHOR(S): Feast, Alan A. J.; Lindberg, Bengt; Theander, Olof

CORPORATE SOURCE: Svenska Traeforskningsinst., Stockholm

SOURCE: Acta Chemica Scandinavica (1965), 19(5),
1127-34

CODEN: ACHSE7; ISSN: 0904-213X

DOCUMENT TYPE: Journal

LANGUAGE: English

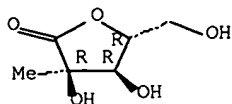
AB Alkaline degradation of 4-O-methyl-D-glucose (I), maltose (II), lactose (III), or guaran (IV) gave approx. equal amts. of α -(V) and β -D-glucosaccharinic acid (VI). The Ca salt of V, obtained from III, was converted to α -D-glucosaccharino-1,4-lactone (VII), m. 94-5°, $[\alpha]_{22D}$ 62.7° (c 0.9, H₂O). Benzoylation of the mother liquors obtained from Ca(OH)₂ treatment of III gave tri-O-benzoyl- α -D-glucosaccharino-1,4-lactone (VIII), m. 120.5-1.5°, $[\alpha]_{22D}$ 46.6° (c 1, CHCl₃), and tri-O-benzoyl- β -D-glucosaccharino-1,4-lactone (IX), m. 113.5-14.5° (MeOH), $[\alpha]_{22D}$ 42.5° (c 1, CHCl₃). Debenzoylation of IX gave sirupy β -D-glucosaccharino-1,4-lactone (X), $[\alpha]_{22D}$ 28° (c 1, H₂O). -VII and X were reduced by NaBH₄ to the corresponding reducing sugars XI, $[\alpha]_{22D}$ -22° (c 1, H₂O), and XII, $[\alpha]_{22D}$ 3° (c 0.8, H₂O), and 3-deoxy-4-C-hydroxymethyl-D-glycero-pentitol (XIII), $[\alpha]_{22D}$ -12° (c 0.5, H₂O). α -D-Glucosaccharino-1,4-lactone (XIV) was prepared from D-fructose (XV) or 1-O-benzyl-D-fructose (XVI) but no β -epimer was formed. XIV was benzoylated to tri-O-benzoyl- α -D-glucosaccharino-1,4-lactone (XVII), m. 141.5-42° (EtOH), $[\alpha]_{22D}$ 124.6° (c 1, CHCl₃). β -L-Glucosaccharino-1,4-lactone (XVIII), $[\alpha]_{23D}$ -106° (c 0.6, H₂O), was prepared by Br oxidation of 2-C-methyl-L-arabinose (XIX). XIV was reduced by Na-Hg to 2-C-methyl-D-ribose (XX), $[\alpha]_{23D}$ 12° (c 0.9, H₂O), characterized as the p-toluenesulfonylhydrazone (XXI), m. 169.5-70° (EtOH), $[\alpha]_{22D}$ 1.8° (c 0.5, C₅H₅N). The 1,4-lactones of the six saccharinic acids were separated by gas-liquid chromatography of the trimethylsilyl ethers; this method appears to be of general value.

IT 492-30-8, D-ribo-Pentonic acid, 2-C-methyl-,
 γ -lactone 7392-74-7, D-ribo-Pentonic acid,
2-C-methyl-, γ -lactone, tribenzoate
(preparation of)

RN 492-30-8 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ -lactone (9CI) (CA INDEX
NAME)

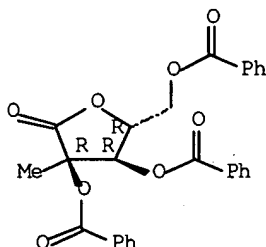
Absolute stereochemistry. Rotation (+).



RN 7392-74-7 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ -lactone, 2,3,5-tribenzoate
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 43 (Carbohydrates)

IT 104-15-4, p-Toluenesulfonic acid, hydrazide hydrazones, with
2-C-methyl-D-ribose 492-30-8, D-ribo-Pentonic acid,
2-C-methyl-, γ -lactone 7306-54-9, D-glycero-Pentitol,
3-deoxy-2-C-(hydroxymethyl)- 7306-56-1, L-arabino-Pentonic acid,
2-C-methyl-, γ -lactone 7306-57-2, Ribose, 2-C-methyl-,
(p-tolylsulfonyl)hydrazone, D- 7392-74-7,
D-ribo-Pentonic acid, 2-C-methyl-, γ -lactone, tribenzoate
886749-47-9, Glucoisosaccharinic acid, γ -lactone,
"β"-D- 886749-47-9, Glucoisosaccharinic acid,
 γ -lactone, "β"-D-
(preparation of)

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Set	Items	Description
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S2	507	AU=MOUSSA A?
S3	301	AU=CHAUDHURI N?
S4	7	AU=WALIGORA F?
S5	3	S1 AND S2 AND S3 AND S4
S6	12	S1 AND (S2 OR S3 OR S4)
S7	12	S2 AND (S1 OR S3 OR S4)
S8	4	S3 AND (S1 OR S2 OR S4)
S9	3	S4 AND (S1 OR S2 OR S3)
S10	16	S4:S9
S11	322277	NUCLEOSID? OR RIBOFURAN?
S12	56965763	PRODUC? OR PROD? ? OR GENERAT? OR MANUF? OR MFR? OR CREAT? OR FORM?? OR FORMING? OR FORMAT? OR MAKE? ? OR MADE? ? OR MAK- ING? OR FABRICAT? OR SYNTHESI? OR PREPAR? OR PREP? ?
S13	216776	S11 AND S12
S14	78	(S1 OR S2 OR S3 OR S4) AND S13
S15	86	S14 OR S10
S16	64	RD S15 (unique items)
S17	13	S10 AND S16
S18	51	S16 NOT S17

? t s17/3,de/all

17/3,DE/1 (Item 1 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
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0015680384 BIOSIS NO.: 200600025779
 NM 283, an efficient prodrug of the potent anti-HCV agent 2
 '-C-methylcytidine
 AUTHOR: Pierra C; Benzaria S; Amador A; ***Moussa A***; Mathieu S;
 Storer R***; Gosselin G (Reprint)
 AUTHOR ADDRESS: Univ Montpellier 2, CNRS, Lab Cooperat Indenix, Pl Eugene
 Bataillon,Case Courrir 008, F-34095 Montpellier, France**France
 AUTHOR E-MAIL ADDRESS: gosselin@univ-montp2.fr
 JOURNAL: Nucleosides Nucleotides & Nucleic Acids 24 (5-7, Sp. Iss. SI): p
 767-770 2005 2005
 ISSN: 1525-7770
 DOCUMENT TYPE: Article
 RECORD TYPE: Abstract
 LANGUAGE: English
 DESCRIPTORS:
 MAJOR CONCEPTS: Pharmacology; Infection; Digestive System--Ingestion and
 Assimilation
 BIOSYSTEMATIC NAMES: Flaviviridae--Positive Sense ssRNA Viruses, Viruses,
 Microorganisms
 ORGANISMS: Hepatitis C virus (Flaviviridae)--pathogen
 COMMON TAXONOMIC TERMS: Microorganisms; Positive Sense Single-Stranded
 RNA Viruses; Viruses
 DISEASES: hepatitis C virus infection--digestive system disease, viral
 disease, drug therapy, etiology
 CHEMICALS & BIOCHEMICALS: NM 283 {3'-O-L-valinyl ester derivative}--

antiinfective-drug, antiviral-drug, efficacy, synthesis;
2'-C-methylcytidine--antiinfective-drug, antiviral-drug, oral
bioavailability

17/3,DE/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0015219215 BIOSIS NO.: 200500126280

Synthesis of (-)-DAPD

AUTHOR: Sznajdman Marcos L (Reprint); Du Jinfa; Pesyan Amir; Cleary Darryl
G; Hurley Kevin P; ***Waligora Frank***; Almond Merrick R
AUTHOR ADDRESS: Norak Biosci, POB 14769, Res Triangle Pk, NC, 27709, USA**
USA

AUTHOR E-MAIL ADDRESS: msznajdman@norakbio.com

JOURNAL: Nucleosides Nucleotides & Nucleic Acids 23 (12): p1875-1887 2004
2004

MEDIUM: print

ISSN: 1525-7770 (ISSN print)

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

DESCRIPTORS:

MAJOR CONCEPTS: Methods and Techniques; Pharmacology

BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing
Viruses, Viruses, Microorganisms

ORGANISMS: HIV {Human immunodeficiency virus} (Retroviridae)--pathogen

COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses;

Microorganisms; Viruses

CHEMICALS & BIOCHEMICALS: DAPD--antiinfective-drug, antiviral-drug;
dioxolane ***nucleoside***

METHODS & EQUIPMENT: HPLC {high performance liquid chromatography}--
chromatographic techniques, laboratory techniques; gas chromatography
--chromatographic techniques, laboratory techniques

MISCELLANEOUS TERMS: organic ***synthesis***

17/3,DE/3 (Item 3 from file: 5)
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0014278924 BIOSIS NO.: 200300235724

NM 283 has potent antiviral activity against genotype 1 chronic hepatitis C
virus (HCV-1) infection in the chimpanzee.

AUTHOR: Standing D N (Reprint); Lanford R; Wright T; Chung R T; Bichko V
(Reprint); Cretton-Scott E (Reprint); Pan-Zhou X (Reprint); Bergelson S
(Reprint); Qu L (Reprint); Tausek M (Reprint); Bridges E (Reprint);
Moussa A*** (Reprint); ***Storer R*** (Reprint); Pierra C; Benzaria S;
Gosselin G; La Colla P; Sommadossi J P (Reprint)

AUTHOR ADDRESS: ldenix Pharmaceuticals, Cambridge, MA, USA**USA

JOURNAL: Journal of Hepatology 38 (Supplement 2): p3 April 2003 2003

MEDIUM: print

CONFERENCE/MEETING: 38th Annual Meeting of the European Association for the
Study of the Liver Istanbul, Turkey March 29-April 01, 2003; 20030329

SPONSOR: European Association for the Study of the Liver

ISSN: 0168-8278 (ISSN print)

DOCUMENT TYPE: Meeting; Meeting Abstract

RECORD TYPE: Citation

LANGUAGE: English

DESCRIPTORS:

MAJOR CONCEPTS: Digestive System--Ingestion and Assimilation; Infection;
Pharmacology

BIOSYSTEMATIC NAMES: Flaviviridae--Positive Sense ssRNA Viruses, Viruses,
Microorganisms; Pongidae--Primates, Mammalia, Vertebrata, Chordata,
Animalia

ORGANISMS: hepatitis C virus-1 {Hepatitis C virus} (Flaviviridae)--

pathogen; chimpanzee (Pongidae)--host, animal model
 ORGANISMS: PARTS ETC: serum--blood and lymphatics
 COMMON TAXONOMIC TERMS: Microorganisms; Positive Sense Single-Stranded
 RNA Viruses; Viruses; Animals; Chordates; Mammals; Nonhuman Mammals;
 Nonhuman Vertebrates; Nonhuman Primates; Primates; Vertebrates
 DISEASES: hepatitis C virus infection--digestive system disease, viral
 disease
 MESH TERMS: Hepatitis C (MeSH)
 CHEMICALS & BIOCHEMICALS: NM283--antiinfective-drug, antiviral-drug,
 oral administration, prodrug; viral RNA; NM107--antiinfective-drug,
 antiviral-drug

17/3,DE/4 (Item 1 from file: 73)
 DIALOG(R)File 73:EMBASE
 (c) 2006 Elsevier B.V. All rts. reserv.

13413667 EMBASE No: 2005461046
 NM 283, an efficient prodrug of the potent anti-HCV agent
 2prime-C-methylcytidine
 Pierra C.; Benzaria S.; Amador A.; ***Moussa A.***; Mathieu S.; ***Storer***
 R.; Gosselin G.
 G. Gosselin, Laboratoire Cooperatif Idenix, CNRS, Universite Montpellier
 II, Place Eugene Bataillon, 34095 Montpellier Cedex 5 France
 AUTHOR EMAIL: gosselin@univ-montp2.fr
 Nucleosides, Nucleotides and Nucleic Acids (NUCLEOSIDES NUCLEOTIDES
 NUCLEIC ACIDS) (United States) 2005, 24/5-7 (767-770)
 CODEN: NNNAF ISSN: 1525-7770
 DOCUMENT TYPE: Journal ; Conference Paper
 LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
 NUMBER OF REFERENCES: 10
 DRUG DESCRIPTORS:
 *antivirus agent--drug analysis--an; *antivirus agent--drug development--dv
 ; *antivirus agent--drug therapy--dt; *antivirus agent--oral drug
 administration--po; *ester derivative--drug analysis--an; *ester derivative
 --drug development--dv; *ester derivative--drug therapy--dt; *ester
 derivative--oral drug administration--po
 unclassified drug
 MEDICAL DESCRIPTORS:
 *hepatitis C--drug therapy--dt
 drug potency; drug synthesis; physical chemistry; antiviral activity;
 Hepatitis C virus; human; conference paper

17/3,DE/5 (Item 1 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
 (c) 2006 The Thomson Corporation. All rts. reserv.

0014753865
 WPI ACC NO: 2005-101497/200511
 XRAM Acc No: C2005-033941
 Preparing ***nucleoside***, ***nucleoside*** analog or prodrug, by
 deprotecting 3'-, 5'-di-O-toluoyl substituents on 1,4-lactone by treating
 1-***nucleoside*** base-2'-deoxy-3'-5'-di-O-toluoyl-***ribofuranose*** with
 sodium methoxide, thus ***producing*** ***nucleoside***
 Patent Assignee: CHAUDHURI N C (CHAU-I); IDENIX CAYMAN LTD (IDEN-N);
 MATHIEU S (MATH-I); MOUSSA A (MOUS-I); STEWART A (STEW-I); STORER R
 (STOR-I); WANG J (WANG-I)
 Inventor: CHAUDHURI N; ***CHAUDHURI N***; ***CHAUDHURI N C***; MATHIEU S;
 MOUSSA A***; STEWART A; ***STORER R***; WANG J; WANG J Y; JING Y W
 6 patents, 107 countries
 Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
WO 2005003374	A2	20050113	WO 2004US21281	A	20040630	200511 B
US 20050059632	A1	20050317	US 2003483711	P	20030630	200521 E
			US 2004558616	P	20040401	

10/735,408

EP 1639121	A2	20060329	US 2004882893	A	20040630	
			EP 2004777433	A	20040630	200623 E
			WO 2004US21281	A	20040630	
NO 200600469	A	20060330	NO 2006469	A	20060130	200627 E
MX 2006000162	A1	20060401	WO 2004US21281	A	20040630	200654 E
			MX 2006162	A	20060105	
AU 2004254620	A1	20050113	AU 2004254620	A	20040630	200656 E

Priority Applications (no., kind, date): US 2004882893 A 20040630; US 2003483711 P 20030630; US 2004558616 P 20040401

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2005003374	A2	EN	136	29	
National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GR GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
US 20050059632	A1	EN			Related to Provisional US 2003483711 Related to Provisional US 2004558616
EP 1639121	A2	EN			PCT Application WO 2004US21281 Based on OPI patent WO 2005003374
Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR					
MX 2006000162	A1	ES			PCT Application WO 2004US21281 Based on OPI patent WO 2005003374
AU 2004254620	A1	EN			Based on OPI patent WO 2005003374

17/3,DE/6 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0014631797
WPI ACC NO: 2004-813796/200480
XRAM Acc No: C2004-283115
Preparation of beta-L-2'-***deoxynucleoside*** useful for treating viral infections involves reacting an optionally protected ***nucleoside*** base with a silylating reagent and reacting the ***formed*** silylated ***nucleoside*** base with 1-halo-2-deoxy-L-sugar
Patent Assignee: IDENIX CAYMAN LTD (IDEN-N); MOUSSA A (MOUS-I); STORER R (STOR-I); WANG J Y (WANG-I)
Inventor: ***MOUSSA A***; ***STORER R***; WANG J; WANG J Y
3 patents, 107 countries

Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
WO 2004096149	A2	20041111	WO 2004US13127	A	20040428	200480 B
US 20050004357	A1	20050106	US 2003466196	P	20030428	200504 E
			US 2004833925	A	20040428	
EP 1620451	A2	20060201	EP 2004750833	A	20040428	200612 E
			WO 2004US13127	A	20040428	

Priority Applications (no., kind, date): US 2004833925 A 20040428; US 2003466196 P 20030428

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2004096149	A2	EN	44	9	
National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW					

10/735,408

MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR
TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES
FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI
SK SL SZ TR TZ UG ZM ZW
US 20050004357 A1 EN Related to Provisional US 2003466196
EP 1620451 A2 EN PCT Application WO 2004US13127
Based on OPI patent WO 2004096149
Regional Designated States,Original: AT BE BG CH CY CZ DE DK EE ES FI FR
GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

17/3,DE/7 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0014631796

WPI ACC NO: 2004-813795/200480

XRAM Acc No: C2004-283114

New oxo-pyrimidine compounds are reverse transcriptase inhibitors useful
for salvage therapy in the treatment or prophylaxis of HIV-infections
Patent Assignee: ARTICO M (ARTI-I); IDENIX CAYMAN LTD (IDEN-N); LA COLLA
P (LCOL-I); MOUSSA A (MOUS-I); STORER R (STOR-I)
Inventor: ARTICO M; LA COLLA P; ***MOUSSA A***; ***STORER R***
3 patents, 107 countries

Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2004096147	A2	20041111	WO 2004US13086	A	20040428	200480 B
US 20050014774	A1	20050120	US 2003466195	P	20030428	200512 E
			US 2004833601	A	20040428	
EP 1620407	A2	20060201	EP 2004760424	A	20040428	200612 E
			WO 2004US13086	A	20040428	

Priority Applications (no., kind, date): US 2004833601 A 20040428; US
2003466195 P 20030428

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2004096147	A2	EN	99	0	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW
BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR
HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW
MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR
TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES
FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI
SK SL SZ TR TZ UG ZM ZW

US 20050014774 A1 EN Related to Provisional US 2003466195
EP 1620407 A2 EN PCT Application WO 2004US13086
Based on OPI patent WO 2004096147

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI
FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR

17/3,DE/8 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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0014482063

WPI ACC NO: 2004-122412/200412

Related WPI Acc No: 2004-132680; 2004-180195; 2004-480899

XRAM Acc No: C2004-049128

New 1',2',3' and 4'-branched pyrimidine or purine ***nucleosides*** useful
for treating Flaviviridae virus infection e.g. hepatitis C virus infection
in a host

Patent Assignee: CENT NAT RECH SCI (CNRS); CHAUDHURI N (CHAU-I); CNRS
CENT NAT RECH SCI (CNRS); DE LA RECHERCHE S C N (DREC-I); IDENIX CAYMAN
LTD (IDEN-N); MOUSSA A M (MOUS-I); STORER R (STOR-I); UNIV CAGLIARI
(UYCA-N); UNIV STUDI CAGLIARI (UYCA-N); WALIGORA F (WALI-I)

Inventor: ***CHAUDHURI N***; COLLA P L; GOSSELIN G; LA COLLA P; LACOLLA P;
MOUSSA A M***; SOMMADOSSI J; SOMMADOSSI J P; ***STORER R***;

WALIGORA F; CENTRE NATIONAL DE LA RECHERCH

12 patents, 104 countries

Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
WO 2004002999	A2	20040108	WO 2003IB3246	A	20030627	200412 B
AU 2003247084	A1	20040119	AU 2003247084	A	20030627	200447 E
US 20050020825	A1	20050127	US 2002432766	P	20021212	200509 E
			US 2003466194	P	20030428	
			US 2003735408	A	20031212	
EP 1523489	A2	20050420	EP 2003761744	A	20030627	200527 E
			WO 2003IB3246	A	20030627	
NO 200500465	A	20050127	WO 2003IB3246	A	20030627	200540 E
			NO 2005465	A	20050127	
JP 2005533817	W	20051110	WO 2003IB3246	A	20030627	200574 E
			JP 2004517158	A	20030627	
CN 1678326	A	20051005	CN 2003820701	A	20030627	200606 E
CN 1678621	A	20051005	CN 2003820690	A	20030627	200606 E
MX 2004012709	A1	20051001	WO 2003IB3246	A	20030627	200620 E
			MX 200412709	A	20041215	
KR 2005048544	A	20050524	WO 2003IB3246	A	20030627	200642 E
			KR 2004721286	A	20041227	
CN 1744903	A	20060308	CN 200380109576	A	20031212	200649 E
CN 1761677	A	20060419	CN 2003820501	A	20030627	200654 E

Priority Applications (no., kind, date): US 2003735408 A 20031212; US
2002432766 P 20021212; US 2003466194 P 20030428; US 2002392350 P
20020628; US 2002392351 P 20020628; US 2003470949 P 20030514

Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2004002999 A2 EN 201 4

National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BY
BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ
NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA
UG US UZ VC VN YU ZA ZM ZW

Regional Designated States, Original: AT BE BG CH CY CZ DE DK EA EE ES FI
FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ
TR TZ UG ZM ZW

AU 2003247084	A1	EN	Based on OPI patent	WO 2004002999
US 20050020825	A1	EN	Related to Provisional	US 2002432766
			Related to Provisional	US 2003466194
EP 1523489	A2	EN	PCT Application	WO 2003IB3246
			Based on OPI patent	WO 2004002999
Regional Designated States, Original: AL AT BE BG CH CY CZ DE DK EE ES FI				
FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR				
NO 200500465	A	NO	PCT Application	WO 2003IB3246
JP 2005533817	W	JA	180	PCT Application
			Based on OPI patent	WO 2004002999
MX 2004012709	A1	ES	PCT Application	WO 2003IB3246
			Based on OPI patent	WO 2004002999
KR 2005048544	A	KO	PCT Application	WO 2003IB3246
			Based on OPI patent	WO 2004002999

17/3, DE/9 (Item 5 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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0014345904

WPI ACC NO: 2004-534120/200451

XRAM Acc No: C2004-196485

Selective esterification of 3'-hydroxyl position of a 2'-branched
 ribofuranosyl ***nucleoside***, useful as an antiviral agent,
 comprises reacting ***ribofuranosyl*** ***nucleoside***, optionally
 protected organic acid, coupling reagent and base
 Patent Assignee: IDENIX CAYMAN LTD (IDEN-N); MATHIEU S (MATH-I); MOUSSA A
 M (MOUS-I); STORER R (STOR-I)

Inventor: MATHIEU S; ***MOUSSA A***; ***MOUSSA A M***; QU L; ***STORER R***
 10 patents, 106 countries

Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
WO 2004058792	A1	20040715	WO 2003US41603	A	20031223	200451 B
US 20040181051	A1	20040916	US 2002436150	P	20021223	200461 E
			US 2003746395	A	20031223	
AU 2003300434	A1	20040722	AU 2003300434	A	20031223	200476 E
EP 1575971	A1	20050921	EP 2003814400	A	20031223	200562 E
			WO 2003US41603	A	20031223	
NO 200503557	A	20050908	WO 2003US41603	A	20031223	200565 E
			NO 20053557	A	20050720	
BR 200316868	A	20051025	BR 200316868	A	20031223	200571 E
			WO 2003US41603	A	20031223	
JP 2006514038	W	20060427	WO 2003US41603	A	20031223	200628 E
			JP 2004562599	A	20031223	
MX 2005006865	A1	20051201	WO 2003US41603	A	20031223	200628 E
			MX 20056865	A	20050622	
ZA 200505040	A	20060426	ZA 20055040	A	20050621	200635 E
CN 1751058	A	20060322	CN 200380109820	A	20031223	200649 E

Priority Applications (no., kind, date): US 2003746395 A 20031223; US
 2002436150 P 20021223

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
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WO 2004058792	A1	EN	57	3	
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National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BW
 BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR
 HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW
 MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT
 TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States, Original: AT BE BG BW CH CY CZ DE DK EA EE ES
 FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL
 SZ TR TZ UG ZM ZW

US 20040181051	A1	EN			Related to Provisional US 2002436150
AU 2003300434	A1	EN			Based on OPI patent WO 2004058792
EP 1575971	A1	EN			PCT Application WO 2003US41603

Based on OPI patent WO 2004058792

Regional Designated States, Original: AL AT BE BG CH CY CZ DE DK EE ES FI
 FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

NO 200503557	A	NO			PCT Application WO 2003US41603
BR 200316868	A	PT			PCT Application WO 2003US41603
					Based on OPI patent WO 2004058792
JP 2006514038	W	JA	47		PCT Application WO 2003US41603
					Based on OPI patent WO 2004058792
MX 2005006865	A1	ES			PCT Application WO 2003US41603
					Based on OPI patent WO 2004058792
ZA 200505040	A	EN	63		

17/3, DE/10 (Item 6 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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0014294144

WPI ACC NO: 2004-480899/200445

Related WPI Acc No: 2004-122412; 2004-132680; 2004-180195; 2005-214393;
2006-545893

XRAM Acc No: C2004-178926

Preparation of a 3'-O-amino acid ester ***nucleoside*** comprises
reaction of ***ribofuranose*** with a base and silylating reagent,
deprotecting, silylating, coupling and removing the protecting group
Patent Assignee: IDENIX CAYMAN LTD (IDEN-N)

Inventor: ***CHAUDHURI N***; ***MOUSSA A***; ***STORER R***; ***WALIGORA***
*** F***

5 patents, 106 countries

Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
WO 2004052899	A2	20040624	WO 2003US39643	A	20031212	200445 B
AU 2003300901	A1	20040630	AU 2003300901	A	20031212	200472 E
EP 1585529	A2	20051019	EP 2003812993	A	20031212	200568 E
			WO 2003US39643	A	20031212	
MX 2005006230	A1	20050901	WO 2003US39643	A	20031212	200617 E
			MX 20056230	A	20050610	
JP 2006514993	W	20060518	WO 2003US39643	A	20031212	200635 E
			JP 2005511773	A	20031212	

Priority Applications (no., kind, date): US 2002432766 P 20021212; US
2003466194 P 20030428

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2004052899	A2	EN	90	6		

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW
BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR
HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW
MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT
TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES
FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL
SZ TR TZ UG ZM ZW

AU 2003300901	A1	EN			Based on OPI patent	WO 2004052899
EP 1585529	A2	EN			PCT Application	WO 2003US39643
					Based on OPI patent	WO 2004052899

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI
FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

MX 2005006230	A1	ES			PCT Application	WO 2003US39643
					Based on OPI patent	WO 2004052899
JP 2006514993	W	JA	64		PCT Application	WO 2003US39643
					Based on OPI patent	WO 2004052899

17/3,DE/11 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0014056195

WPI ACC NO: 2004-238646/200422

XRAM Acc No: C2004-093307

New phenylindole derivatives are reverse transcriptase inhibitors, useful
in the treatment of e.g. AIDS-related complex, persistent generalized
lymphadenopathy and Kaposi's sarcoma

Patent Assignee: ARTICO M (ARTI-I); IDENIX CAYMAN LTD (IDEN-N); LACOLLA P
(LACO-I); MOUSSA A (MOUS-I); SILVESTRI R (SILV-I); SOMMADOSSI J
(SOMM-I); STORER R (STOR-I); UNIV CAGLIARI (UYCA-N)

Inventor: ARTICO M; LA COLLA P; LACOLLA P; ***MOUSSA A***; ***MOUSSA A M***
; SILVESTRI R; SOMMADOSSI J; SOMMADOSSI J P; ***STORER R***

6 patents, 104 countries

Patent Family

Patent	Application
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10/735,408

Number	Kind	Date	Number	Kind	Date	Update
WO 2004014364	A1	20040219	WO 2003US24957	A	20030807	200422 B
AU 2003258145	A1	20040225	AU 2003258145	A	20030807	200456 E
US 20040180945	A1	20040916	US 2002401915	P	20020807	200461 E
			US 2003637949	A	20030807	
EP 1545510	A1	20050629	EP 2003785103	A	20030807	200543 E
			WO 2003US24957	A	20030807	
AU 2003258145	A8	20040225	AU 2003258145	A	20030807	200562 E
JP 2006500355	W	20060105	WO 2003US24957	A	20030807	200603 E
			JP 2004527940	A	20030807	

Priority Applications (no., kind, date): US 2003637949 A 20030807; US 2002401915 P 20020807

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
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WO 2004014364	A1	EN	178	0	
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National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

AU 2003258145	A1	EN		Based on OPI patent	WO 2004014364
US 20040180945	A1	EN		Related to Provisional	US 2002401915
EP 1545510	A1	EN		PCT Application	WO 2003US24957
				Based on OPI patent	WO 2004014364

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

AU 2003258145	A8	EN		Based on OPI patent	WO 2004014364
JP 2006500355	W	JA	132	PCT Application	WO 2003US24957
				Based on OPI patent	WO 2004014364

17/3,DE/12 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0013903552

WPI ACC NO: 2004-083006/200408

XRAM Acc No: C2004-034122

XRPX Acc No: N2004-066310

Decontamination of a domestic hot water pipe, containing stagnant water, has a conductive cladding over the pipe length with a closed circuit formed between two end points and a variable magnetic flow through it

Patent Assignee: DESCHAMPS LATHUS SA (DESC-N); IDENIX CAYMAN LTD (IDEN-N); NTU VENTURES PTE LTD (NTUV-N)

Inventor: BAILLI D; ***CHAUDHURI N***; DELPIERRE F; GUITTON R; LATHUS L;

MOUSSA A***; PRIOTON C; ***STORER R***; ***WALIGORA F

9 patents, 99 countries

Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
WO 2004002899	A2	20040108	WO 2003FR2008	A	20030627	200408 B
FR 2841475	A1	20040102	FR 20028060	A	20020628	200414 E
AU 2003267500	A1	20040119	AU 2003267500	A	20030627	200447 E
EP 1517861	A2	20050330	EP 2003748190	A	20030627	200522 E
			WO 2003FR2008	A	20030627	
NO 200503115	A	20050818	WO 2003US39643	A	20031212	200558 E
			NO 20053115	A	20050624	
EP 1517861	B1	20060215	EP 2003748190	A	20030627	200614 E
			WO 2003FR2008	A	20030627	
AU 2003267500	A8	20051027	AU 2003267500	A	20030627	200624 E
US 20060081617	A1	20060420	WO 2003FR2008	A	20030627	200627 E

10/735,408

US 2005519556 A 20050829
DE 60303605 E 20060420 DE 60303605 A 20030627 200628 E
EP 2003748190 A 20030627
WO 2003FR2008 A 20030627

Priority Applications (no., kind, date): US 2003466194 P 20030428; US
2002432766 P 20021212; FR 20028060 A 20020628

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
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WO 2004002899	A2	FR	29	3	
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National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BY
BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ
NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN
YU ZA ZM ZW

Regional Designated States, Original: AT BE BG CH CY CZ DE DK EA EE ES FI
FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ
TR TZ UG ZM ZW

AU 2003267500	A1	EN			Based on OPI patent WO 2004002899
EP 1517861	A2	FR			PCT Application WO 2003FR2008

Based on OPI patent WO 2004002899

Regional Designated States, Original: AL AT BE BG CH CY CZ DE DK EE ES FI
FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

NO 200503115	A	NO			PCT Application WO 2003US39643
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EP 1517861	B1	FR			PCT Application WO 2003FR2008
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Based on OPI patent WO 2004002899

Regional Designated States, Original: AT BE BG CH CY CZ DE DK EE ES FI FR
GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

AU 2003267500	A8	EN			Based on OPI patent WO 2004002899
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US 20060081617	A1	EN			PCT Application WO 2003FR2008
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DE 60303605	E	DE			Application EP 2003748190
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PCT Application WO 2003FR2008

Based on OPI patent EP 1517861

Based on OPI patent WO 2004002899

Germany

Publication No. DE 60303605 E (Update 200628 E)

Publication Date: 20060420

Language: DE

Application: DE 60303605 A 20030627 (Local application)

EP 2003748190 A 20030627 (Application)

WO 2003FR2008 A 20030627 (PCT Application)

Priority: FR 20028060 A 20020628

Related Publication: EP 1517861 A (Based on OPI patent)

WO 2004002899 A (Based on OPI patent)

Original IPC: A61L-2/00(I,DE,20060101,A,L) C02F-1/48(I,DE,20060101,A,F)

Current IPC: A61L-2/00(I,DE,20060101,A,L) C02F-1/48(I,DE,20060101,A,F)

17/3,DE/13 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0010363557

WPI ACC NO: 2000-679454/200066

XRAM Acc No: C2000-206603

Preparation of 6-benzyl-1-(ethoxymethyl)-5-isopropoyluracil (MKC-442),
useful as an antiviral agent, particularly for treating HIV infection

Patent Assignee: CATALYTICA PHARM (CATA-N); DSM PHARM INC (STAM);

TRIANGLE PHARM INC (TRIA-N)

Inventor: ALMOND M R; CLEARY D G; KUZEMKO M; MUNGAL T; O'MAHONY R;

WALIGORA F

7 patents, 91 countries

Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
WO 2000061566	A1	20001019	WO 2000US9965	A	20000413	200066 B
AU 200044590	A	20001114	AU 200044590	A	20000413	200108 E
EP 1169310	A1	20020109	EP 2000925979	A	20000413	200205 E
			WO 2000US9965	A	20000413	
CN 1352637	A	20020605	CN 2000806152	A	20000413	200261 E
KR 2002040657	A	20020530	KR 2001712800	A	20011008	200276 E
JP 2002541247	W	20021203	JP 2000610841	A	20000413	200309 E
			WO 2000US9965	A	20000413	
IN 200100941	P1	20050311	EP 2000921131	A	20000412	200642 E
			IN 2001DN941	A	20011015	

Priority Applications (no., kind, date): US 1999128925 P 19990413

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2000061566	A1	EN	28	1	
National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
Regional Designated States, Original: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
AU 200044590	A	EN			Based on OPI patent WO 2000061566
EP 1169310	A1	EN			PCT Application WO 2000US9965
					Based on OPI patent WO 2000061566
Regional Designated States, Original: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2002541247	W	JA	29		PCT Application WO 2000US9965
					Based on OPI patent WO 2000061566
IN 200100941	P1	EN			PCT Application EP 2000921131

? t sl8/3,de/all

18/3,DE/1 (Item 1 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
 (c) 2006 The Thomson Corporation. All rts. reserv.

0015680368 BIOSIS NO.: 200600025763
 Rapid access to 2 '-branched-carbocyclic ***nucleosides*** and their 4 '-epimers from 2-alkyl-cyclopentene-1-ones
 AUTHOR: Meillon J-C; Griffe L; ***Storer R***; Gosselin G (Reprint)
 AUTHOR ADDRESS: Univ Montpellier 2, CNRS, Lab Cooperat Idenix, Pl Eugene Bataillon, Case Courrier 008, F-34095 Montpellier 5, France**France
 AUTHOR E-MAIL ADDRESS: gosselin@univ-montp2.fr
 JOURNAL: Nucleosides Nucleotides & Nucleic Acids 24 (5-7, Sp. Iss. SI): p 695-699 2005 2005
 ISSN: 1525-7770
 DOCUMENT TYPE: Article
 RECORD TYPE: Abstract
 LANGUAGE: English
 DESCRIPTORS:
 MAJOR CONCEPTS: Pharmacology; Infection; Methods and Techniques
 BIOSYSTEMATIC NAMES: Viruses--Microorganisms
 ORGANISMS: Virus (Viruses)--pathogen
 COMMON TAXONOMIC TERMS: Microorganisms; Viruses
 DISEASES: viral infection--viral disease, drug therapy
 MESH TERMS: Virus Diseases (MeSH)
 CHEMICALS & BIOCHEMICALS: 2-methyl-2-cyclopentene-1-one; 2'-branched-carbocyclic ***nucleosides***; 4'-epicarboxylic--antiinfective-drug, antiviral-drug
 METHODS & EQUIPMENT: drug ***synthesis***--laboratory techniques

18/3,DE/2 (Item 2 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)

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0015680362 BIOSIS NO.: 200600025757

Synthesis of 5-aza-7-deazaguanine ***nucleoside*** derivatives as potential anti-flavivirus agents

AUTHOR: Dukhan D; Leroy F; Peyronnet J; Bosc E; Chaves D; Durka M;

Storer R***; La Colla P; Seela F; Gosselin G (Reprint)

AUTHOR ADDRESS: Univ Montpellier 2, Lab Cooperat Idenix, CNRS, Pl Eugene

Bataillon, Case Courrier 008, F-34095 Montpellier 5, France**France

AUTHOR E-MAIL ADDRESS: gosselin@univ-montp2.fr

JOURNAL: Nucleosides Nucleotides & Nucleic Acids 24 (5-7, Sp. Iss. SI): p

671-674 2005 2005

ISSN: 1525-7770

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

REGISTRY NUMBERS: 7646-69-7: sodium hydride

DESCRIPTORS:

MAJOR CONCEPTS: Pharmacology; Chemistry

BIOSYSTEMATIC NAMES: Flaviviridae--Positive Sense ssRNA Viruses, Viruses, Microorganisms

ORGANISMS: West Nile virus (Flaviviridae); Bovine viral diarrhea virus (Flaviviridae); Yellow fever virus (Flaviviridae); Dengue virus 2 (Dengue virus) (Flaviviridae)

COMMON TAXONOMIC TERMS: Microorganisms; Positive Sense Single-Stranded RNA Viruses; Viruses

CHEMICALS & BIOCHEMICALS: RNA; D-***ribofuranose***; sodium hydride; L-***ribofuranose***; branched sugars; 3'-deoxysugar; 2'-deoxysugar; 2-aminoimidazo{1,2-a}-s-triazin-4-one; 5-aza-7-deazaguanine ***nucleoside***--***synthesis

METHODS & EQUIPMENT: Vorbruggen's method--laboratory techniques

MISCELLANEOUS TERMS: antiviral property

18/3,DE/3 (Item 3 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0015680361 BIOSIS NO.: 200600025756

Synthesis of 2'-C-methyl-beta-D-***ribofuranosylimidazo***

[4,5-d]-pyridazine derivatives (2-aza-3-deazapurine ***nucleoside*** analogues)

AUTHOR: Leroy F; Dukhan D; Durka M; Chaves D; Bragnier N; ***Storer R***; Gosselin G (Reprint)

AUTHOR ADDRESS: Univ Montpellier 2, Lab Cooperat Idenix, CNRS, Pl Eugene

Bataillon, Case Courrier 008, F-34095 Montpellier 5, France**France

AUTHOR E-MAIL ADDRESS: gosselin@univ-montp2.fr

JOURNAL: Nucleosides Nucleotides & Nucleic Acids 24 (5-7, Sp. Iss. SI): p

667-669 2005 2005

ISSN: 1525-7770

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

DESCRIPTORS:

MAJOR CONCEPTS: Pharmacology; Chemistry

CHEMICALS & BIOCHEMICALS: 2'-C-methyl-beta-D-***ribofuranonucleoside*** --***synthesis***; 2'-C-methyl-beta-D-ribofuranosylimidazo {4,5-d} -pyridazine--***synthesis***

MISCELLANEOUS TERMS: antiviral property

18/3,DE/4 (Item 4 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0013177158 BIOSIS NO.: 200100348997

1,3-oxathiolane ***nucleoside*** analogues

AUTHOR: Coates Jonathan Allan (Reprint); Mutton Ian Martin; Penn Charles Richard; Williamson Christopher; ***Storer Richard***
 AUTHOR ADDRESS: Greenford, UK**UK
 JOURNAL: Official Gazette of the United States Patent and Trademark Office Patents 1242 (5): Jan. 30, 2001 2001
 MEDIUM: e-file
 PATENT NUMBER: US 6180639 PATENT DATE GRANTED: January 30, 2001 20010130
 PATENT CLASSIFICATION: 514-274 PATENT ASSIGNEE: BioChem Pharma Inc., Laval, Canada PATENT COUNTRY: USA
 ISSN: 0098-1133
 DOCUMENT TYPE: Patent
 RECORD TYPE: Abstract
 LANGUAGE: English
 DESCRIPTORS:
 MAJOR CONCEPTS: Methods and Techniques; Pharmacology
 CHEMICALS & BIOCHEMICALS: 1,3-oxathiolane ***nucleoside*** analogues--antiviral-drug
 METHODS & EQUIPMENT: 1,3-oxathiolane ***nucleoside*** analogue preparation*** method--synthetic method

18/3,DE/5 (Item 5 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
 (c) 2006 The Thomson Corporation. All rts. reserv.

0011921968 BIOSIS NO.: 199900181628
 The ***synthesis*** and antiviral activity of 4-fluoro-1-beta-D-ribofuranosyl***-1H-pyrazole-3-carboxamide
 AUTHOR: ***Storer Richard*** (Reprint); Ashton Claire J; Baxter Anthony D; Hann Michael M; Marr Clara LP; Mason Andrew M; Mo Chi-Leung; Myers Peter L; Noble Stewart A; Penn Charles R; Weir Niall G; Woods Jacqueline M; Coe Paul L
 AUTHOR ADDRESS: Medicines Research Centre, GlaxoWellcome Research and Development, Gunnels Wood Road, Stevenage, Hertfordshire, SG1 2NY, UK**UK
 JOURNAL: Nucleosides and Nucleotides 18 (2): p203-216 Feb., 1999 1999
 MEDIUM: print
 ISSN: 0732-8311
 DOCUMENT TYPE: Article
 RECORD TYPE: Abstract
 LANGUAGE: English
 REGISTRY NUMBERS: 36791-04-5: ribavirin
 DESCRIPTORS:
 MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Pharmacology
 DISEASES: influenza--respiratory system disease, viral disease
 MESH TERMS: Influenza (MeSH)
 CHEMICALS & BIOCHEMICALS: ribavirin--antiviral-drug; 4-fluoro-1-beta-D-***ribofuranosyl***-1H-pyrazole-3-carboxamide--antiviral-drug, antiinfluenza activity, ***synthesis***, fluoropyrazole ribonucleoside
 METHODS & EQUIPMENT: ***synthesis***--synthetic method
 MISCELLANEOUS TERMS: mode of action

18/3,DE/6 (Item 6 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
 (c) 2006 The Thomson Corporation. All rts. reserv.

0009807949 BIOSIS NO.: 199598275782
 An efficient method for the ***synthesis*** of aromatic C-***nucleosides***
 AUTHOR: ***Chaudhuri Narayan C***; Kool Eric T (Reprint)
 AUTHOR ADDRESS: Dep. Chem., Univ. Rochester, Rochester, NY 14627, USA**USA
 JOURNAL: Tetrahedron Letters 36 (11): p1795-1798 1995 1995
 ISSN: 0040-4039
 DOCUMENT TYPE: Article
 RECORD TYPE: Citation
 LANGUAGE: English
 DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Methods and Techniques

MISCELLANEOUS TERMS: SYNTHETIC METHOD

18/3,DE/7 (Item 7 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
 (c) 2006 The Thomson Corporation. All rts. reserv.

0008745365 BIOSIS NO.: 199395047631

The potential of carbocyclic ***nucleosides*** for the treatment of AIDS:
Synthesis* of some diphosphorylphosphonates possessing potent activity against HIV-coded reverse transcriptase**

AUTHOR: Coe Diane M; Roberts Stanley M (Reprint); *Storer Richard**

AUTHOR ADDRESS: Dep. Chem., Exeter University, Exeter, Devon EX4 4QD, UK UK**

JOURNAL: Journal of the Chemical Society Perkin Transactions I 0 (20): p 2695-2704 1992

ISSN: 0300-922X

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Enzymology-- Biochemistry and Molecular Biophysics; Genetics; Immune System-- Chemical Coordination and Homeostasis; Infection; Pharmacology

BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms

ORGANISMS: human immunodeficiency virus (Retroviridae)

COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses

MISCELLANEOUS TERMS: ACQUIRED IMMUNODEFICIENCY SYNDROME; POTENTIAL ANTIVIRALS; POTENTIAL ENZYME INHIBITORS; SYNTHETIC METHOD

18/3,DE/8 (Item 8 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
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0008391691 BIOSIS NO.: 199294093532

ENANTIOSPECIFIC ***SYNTHESIS*** OF 3' HETERODIDEOXY ***NUCLEOSIDE***

ANALOGUES AS POTENTIAL ANTI-HIV AGENTS

AUTHOR: JONES M F (Reprint); NOBLE S A; ROBERTSON C A; *STORER R***; HIGHCOCK R M; LAMONT R B**

AUTHOR ADDRESS: DEP MED CHEM, GLAXO GROUP RES LIMITED, GREENFORD RD, GREENFORD, MIDDLESEX UB6 0HE, UKUK**

JOURNAL: Journal of the Chemical Society Perkin Transactions I (11): p 1427-1436 1992

ISSN: 0300-922X

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

DESCRIPTORS: ANTI-HUMAN IMMUNODEFICIENCY VIRUS AGENTS 2R 4R-4-6'

AMINO-9'H-PURIN-9'-YLTETRAHYDROFURAN-2-METHANOL 3'R 5'R-4

AMINO-1-5'-BENZYLOXYMETHYLTETRAHYDRO-3'-THIENYLPYRIMIDIN-2-1H-ONE SYNTHETIC METHOD

DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Infection; Pharmacology

BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms

COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses

18/3,DE/9 (Item 9 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)

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0008171468 BIOSIS NO.: 199293014359
THE POTENTIAL OF CARBOCYCLIC ***NUCLEOSIDES*** FOR THE TREATMENT OF AIDS
SYNTHESIS*** OF CARBOCYCLIC 6' FLUORO-2' 3'-DIDEOXYTHYMIDINE
AUTHOR: COE D M (Reprint); PARRY D M; ROBERTS S M; ***STORER R
AUTHOR ADDRESS: DEP CHEM, EXETER UNIV, EXETER, DEVON EX4 4QD, UK**UK
JOURNAL: Journal of the Chemical Society Perkin Transactions I (10): p
2373-2378 1991
ISSN: 0300-922X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH
DESCRIPTORS: HUMAN IMMUNODEFICIENCY VIRUS REVERSE TRANSCRIPTASE INHIBITOR
ANTIVIRAL AGENTS ACQUIRED IMMUNODEFICIENCY SYNDROME
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing
Viruses, Viruses, Microorganisms
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses;
Microorganisms; Viruses

18/3,DE/10 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0008135964 BIOSIS NO.: 199243104555
SYNTHESIS OF CHIRAL ***NUCLEOSIDE*** ANALOGUES AS ANTIVIRAL AGENTS
AUTHOR: ***STORER R*** (Reprint); BAXTER A D; CLEMENS I R; PATERNOSTER I L;
WILLIAMSON C
AUTHOR ADDRESS: MEDICINAL CHEM II, GLAXO GROUP RES, GREENFORD, MIDDLESEX
UB6 0HE, UK**UK
JOURNAL: Abstracts of Papers American Chemical Society 204 (1-2): pORGN
404 1992
CONFERENCE/MEETING: 204TH AMERICAN CHEMICAL SOCIETY NATIONAL MEETING,
WASHINGTON, D.C., USA, AUGUST 23-28, 1992. ABSTR PAP AM CHEM SOC.
ISSN: 0065-7727
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation
LANGUAGE: ENGLISH
DESCRIPTORS: ABSTRACT
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Pharmacology
BIOSYSTEMATIC NAMES: Viruses--Microorganisms
COMMON TAXONOMIC TERMS: Microorganisms; Viruses

18/3,DE/11 (Item 11 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0007804369 BIOSIS NO.: 199192050140
THE POTENTIAL FOR USING CARBOCYCLIC ***NUCLEOSIDES*** FOR THE TREATMENT OF
AIDS PART 1. ***PREPARATION*** OF SOME ANALOGUES FOR AZIDOTHYMIDINE AZT
AUTHOR: HIGHCOCK R M (Reprint); HILPERT H; MYERS P L; ROBERTS S M;
STORER R
AUTHOR ADDRESS: DEP CHEMISTRY, EXETER UNIVERSITY, EXETER, DEVON EX4 4QD, UK
**UK
JOURNAL: Journal of the Chemical Society Perkin Transactions I (5): p
1127-1134 1991
ISSN: 0300-922X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 30516-87-1: AZIDOTHYMIDINE
DESCRIPTORS: ANTIVIRAL-DRUG ACQUIRED IMMUNODEFICIENCY SYNDROME

DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Blood and Lymphatics--Transport and Circulation; Clinical Endocrinology--Human Medicine, Medical Sciences; Hematology--Human Medicine, Medical Sciences; Infection; Pharmacology

BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms; Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia

COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses; Animals; Chordates; Humans; Mammals; Primates; Vertebrates

CHEMICALS & BIOCHEMICALS: AZIDOTHYIMIDINE

18/3,DE/12 (Item 12 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2006 The Thomson Corporation. All rts. reserv.

0007653645 BIOSIS NO.: 199191036536
ATTEMPTED RING CONTRACTION OF ALPHA TRIFLATES OF 3 AZIDO-GAMMA-LACTONES AND 3 FLUORO-GAMMA-LACTONES TO OXETANES

AUTHOR: ELLIOTT R P (Reprint); FLEET G W J; VOGT K; WILSON F X; WANG Y; WITTY D R; ***STORER R***; MYERS P L; WALLIS C J

AUTHOR ADDRESS: DYSON PERRINS LAB, OXFORD UNIV, SOUTH PARKS RD, OXFORD OX1 3QY, UK**UK

JOURNAL: Tetrahedron Asymmetry 1 (10): p715-720 1990

ISSN: 0957-4166

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

REGISTRY NUMBERS: 37181-39-8: TRIFLATES; 503-30-0D: OXETANES; 503-30-0:

OXETANE; 584-08-7: POTASSIUM CARBONATE; 67-56-1: METHANOL

DESCRIPTORS: OXETANE ***NUCLEOSIDES*** ANTIVIRAL AGENTS POTASSIUM CARBONATE METHANOL

DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Pharmacology

CHEMICALS & BIOCHEMICALS: TRIFLATES; OXETANES; OXETANE; POTASSIUM CARBONATE; METHANOL

18/3,DE/13 (Item 13 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0007641926 BIOSIS NO.: 199191024817
SYNTHESIS OF THE POTENT ANTIVIRAL OXETANE ***NUCLEOSIDE***
EPINOROXETANOCIN FROM D LYXONOLACTONE

AUTHOR: WANG Y (Reprint); FLEET G W J; ***STORER R***; MYERS P L; WALLIS C J; DOHERTY O; WATKIN D J; VOGT K; WITTY D R; WILSON F X; PEACH M J

AUTHOR ADDRESS: DYSON PERRINS LAB, OXFORD UNIV, SOUTH PARKS RD, OXFORD OX1 3QY, UK**UK

JOURNAL: Tetrahedron Asymmetry 1 (8): p527-530 1990

ISSN: 0957-4166

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

REGISTRY NUMBERS: 503-30-0: OXETANE; 103913-16-2: OXETANOCIN

DESCRIPTORS: HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 OXETANOCIN NOROXETANOCIN ANTIVIRAL-DRUG CRYSTAL STRUCTURE

DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Immune System--Chemical Coordination and Homeostasis; Infection; Pharmacology

BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms

COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses

CHEMICALS & BIOCHEMICALS: OXETANE; OXETANOCIN

18/3,DE/14 (Item 14 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
 (c) 2006 The Thomson Corporation. All rts. reserv.

0007640712 BIOSIS NO.: 199191023603
 SYNTHESIS OF THE OXETANE ***NUCLEOSIDES*** ALPHA NOROXETANOCIN AND
 BETA NOROXETANOCIN
 AUTHOR: WILSON F X (Reprint); FLEET G W J; WITTY D R; VOGT K; WANG Y;
 STORER R***; MYERS P L; WALLIS C L
 AUTHOR ADDRESS: DYSON PERRINS LAB, OXFORD UNIV, SOUTH PARKS RD, OXFORD, OX1
 3QY, UK**UK
 JOURNAL: Tetrahedron Asymmetry 1 (8): p525-526 1990
 ISSN: 0957-4166
 DOCUMENT TYPE: Article
 RECORD TYPE: Abstract
 LANGUAGE: ENGLISH
 REGISTRY NUMBERS: 503-30-0: OXETANE
 DESCRIPTORS: 9-BETA-D-ERYTHRO OXETANOSYLADENINE 3 5
 DI-O-BENZYL-D-RIBONOLACTONE
 DESCRIPTORS:
 MAJOR CONCEPTS: Biochemistry and Molecular Biophysics
 CHEMICALS & BIOCHEMICALS: OXETANE

18/3,DE/15 (Item 15 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
 (c) 2006 The Thomson Corporation. All rts. reserv.

0007570439 BIOSIS NO.: 199141083065
 SYNTHESIS AND BIOLOGICAL ACTIVITY OF CARBOCYCLIC CLITOCINE
 AUTHOR: BAXTER A D (Reprint); PENN C R; ***STORER R***; WEIR N G; WOODS J M
 AUTHOR ADDRESS: DEP MEDICINAL CHEMISTRY, GLAXO GROUP RESEARCH LTD,
 GREENFORD, MIDDLESEX UB6 0HE, UK**UK
 JOURNAL: Nucleosides and Nucleotides 10 (1-3): p393-396 1991
 CONFERENCE/MEETING: PROCEEDINGS OF THE 9TH INTERNATIONAL ROUND TABLE
 DISCUSSION ON NUCLEOSIDES, NUCLEOTIDES, AND THEIR BIOLOGICAL APPLICATIONS,
 UPPSALA, SWEDEN, JULY 30-AUGUST 3, 1990. NUCLEOSIDES NUCLEOTIDES.
 ISSN: 0732-8311
 DOCUMENT TYPE: Meeting
 RECORD TYPE: Citation
 LANGUAGE: ENGLISH
 REGISTRY NUMBERS: 105798-74-1: CLITOCINE
 DESCRIPTORS: MOUSE L1210 CELLS INFLUENZA A VIRUS 6 AMINO-5-NITRO-4-BETA-D-
 RIBOFURANOSYLAMINOPYRIMIDINE ANTINEOPLASTIC-DRUG ANTIVIRAL-DRUG
 PHARMACOKINETICS
 DESCRIPTORS:
 MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Enzymology--
 Biochemistry and Molecular Biophysics; Infection; Metabolism;
 Pharmacology; Tumor Biology
 BIOSYSTEMATIC NAMES: Orthomyxoviridae--Negative Sense ssRNA Viruses,
 Viruses, Microorganisms; Muridae--Rodentia, Mammalia, Vertebrata,
 Chordata, Animalia
 COMMON TAXONOMIC TERMS: Microorganisms; Negative Sense Single-Stranded
 RNA Viruses; Viruses; Animals; Chordates; Mammals; Nonhuman Vertebrates
 ; Nonhuman Mammals; Rodents; Vertebrates
 CHEMICALS & BIOCHEMICALS: CLITOCINE

18/3,DE/16 (Item 16 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
 (c) 2006 The Thomson Corporation. All rts. reserv.

0007527497 BIOSIS NO.: 199141040123
 IMPROVED ***SYNTHESIS*** OF LEVO CARBOVIR GR-90352X A POTENT AND SELECTIVE
 INHIBITOR OF HIV-1 IN-VITRO

BOOK TITLE: ST. GEORGIEV, V. AND J. J. MCGOWAN (ED.). ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, VOL. 616. AIDS: ANTI-HIV AGENTS, THERAPIES, AND VACCINES; SECOND INTERNATIONAL CONFERENCE ON DRUG RESEARCH IN IMMUNOLOGIC AND INFECTIOUS DISEASES: ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS), ARLINGTON, VIRGINIA, USA, NOVEMBER 6-9, 1989. XV+634P. NEW YORK ACADEMY OF SCIENCES: NEW YORK, NEW YORK, USA. ILLUS

AUTHOR: JONES M F (Reprint); MO C L; MYERS P L; PATERNOSTER I L; ***STORER***
 *** R***; WEINGARTEN G G; WILLIAMSON C

AUTHOR ADDRESS: MICROBIOL CHEM DEP, GLAXO GROUP RES, GREENFORD, MIDDLESEX UB6 0HE, UK**UK

SERIES TITLE: Annals of the New York Academy of Sciences p535-537 1990

ISSN: 007-8923 ISBN: 0-89766-631-3 (CLOTH); 0-89766-632-1 (PAPER)

DOCUMENT TYPE: Book; Meeting

RECORD TYPE: Citation

LANGUAGE: ENGLISH

REGISTRY NUMBERS: 120443-30-3:: LEVO

DESCRIPTORS: MT4 CELLS HUMAN IMMUNODEFICIENCY VIRUS CARBOCYCLIC
 NUCLEOSIDE ANTIVIRAL-DRUG

DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Cell Biology; Infection; Microbiology; Pharmacology

BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms; Vertebrata--Chordata, Animalia

COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses; Animals; Chordates; Nonhuman Vertebrates; Vertebrates

CHEMICALS & BIOCHEMICALS: LEVO

18/3,DE/17 (Item 17 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
 (c) 2006 The Thomson Corporation. All rts. reserv.

0007499476 BIOSIS NO.: 199141012102

SYNTHESIS OF SOME MIMICS OF ***NUCLEOSIDE*** TRIPHOSPHATES

AUTHOR: COE D M (Reprint); HILPERT H; NOBLE S A; PEEL M R; ROBERTS S M; STORER R

AUTHOR ADDRESS: DEP CHEM, EXETER UNIV, STOCKER RD, EXETER, DEVON EX4 4QD, UK**UK

JOURNAL: Journal of the Chemical Society Chemical Communications (5): p 312-314 1991

ISSN: 0022-4936

DOCUMENT TYPE: Article

RECORD TYPE: Citation

LANGUAGE: ENGLISH

REGISTRY NUMBERS: 14127-68-5D: TRIPHOSPHATES

DESCRIPTORS: HUMAN IMMUNODEFICIENCY VIRUS ANTIVIRAL-DRUG ENZYME INHIBITOR-DRUG REVERSE TRANSCRIPTASE

DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Enzymology-- Biochemistry and Molecular Biophysics; Infection; Pharmacology

BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms

COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses

CHEMICALS & BIOCHEMICALS: TRIPHOSPHATES

18/3,DE/18 (Item 18 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
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0007410301 BIOSIS NO.: 199140053192

TETRAHYDROTHIOPHENE ***NUCLEOSIDES*** AS POTENTIAL ANTI-HIV AGENTS

AUTHOR: JONES M F (Reprint); NOBLE S A; ROBERTSON C A; ***STORER R***

AUTHOR ADDRESS: MED CHEM, GLAXO GROUP RES LTD, GREENFORD, MIDDLESEX UB6 0HE, UK**UK

JOURNAL: Tetrahedron Letters 32 (2): p247-250 1991
ISSN: 0040-4039
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 110-01-0: TETRAHYDROTHIOPHENE
DESCRIPTORS: HUMAN IMMUNODEFICIENCY VIRUS ***SYNTHESIS*** ANTIVIRAL-DRUG
DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Microbiology;
Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing
Viruses, Viruses, Microorganisms
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses;
Microorganisms; Viruses
CHEMICALS & BIOCHEMICALS: TETRAHYDROTHIOPHENE

18/3,DE/19 (Item 19 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2006 The Thomson Corporation. All rts. reserv.

0007379385 BIOSIS NO.: 199140022276
SYNTHESIS OF OXETANOCIN
AUTHOR: WILSON F X (Reprint); FLEET G W J; VOGT K; WANG Y; WITTY D R; CHOI
S; ***STORER R***; MYERS P L; WALLIS C J
AUTHOR ADDRESS: DYSN PERRINS LAB, OXFORD UNIV, SOUTH PARKS RD, OXFORD OX1
3QY, UK**UK
JOURNAL: Tetrahedron Letters 31 (47): p6931-6934 1990
ISSN: 0040-4039
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 103913-16-2: OXETANOCIN; 503-30-0: OXETANE
DESCRIPTORS: POTENTIAL ANTIVIRAL AGENT OXETANE-BASED ***NUCLEOSIDE***
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Pharmacognosy--
Pharmacology; Pharmacology
CHEMICALS & BIOCHEMICALS: OXETANOCIN; OXETANE

18/3,DE/20 (Item 20 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2006 The Thomson Corporation. All rts. reserv.

0006925306 BIOSIS NO.: 199038103197
SYNTHESIS OF COMPOUNDS ACTIVE AGAINST HIV PART 2. ***PREPARATIONS***
OF SOME 2' 3' DIDEOXY-6'-FLUOROCARBOCYCLIC ***NUCLEOSIDES***
AUTHOR: COE D M (Reprint); MYERS P L; PARRY D M; ROBERTS S M; ***STORER***
*** R***
AUTHOR ADDRESS: DEP CHEM, EXETER UNIV, EXETER, DEVON EX4 4QD, UK**UK
JOURNAL: Journal of the Chemical Society Chemical Communications (2): p
151-153 1990
ISSN: 0022-4936
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: ENGLISH
DESCRIPTORS: HUMAN IMMUNODEFICIENCY VIRUS
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Microbiology;
Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing
Viruses, Viruses, Microorganisms
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses;
Microorganisms; Viruses

18/3,DE/21 (Item 1 from file: 73)

DIALOG(R)File 73:EMBASE
(c) 2006 Elsevier B.V. All rts. reserv.

13543450 EMBASE No: 2005578657

A short and novel ***synthesis*** of carbocyclic ***nucleosides*** and 4prime-epi-carbocyclic ***nucleosides*** from 2-cyclopenten-1-ones
Gosselin G.; Griffe L.; Meillon J.-C.; ***Storer R.***
J.-C. Meillon, Laboratoire Cooperatif Idenix-CNRS-UM II, Universite Montpellier II, Pl. E.-Bataillon, case courrier 008, F-34095 Montpellier Cedex 5 France
AUTHOR EMAIL: meillon.jean-christophe@idenix.com
Tetrahedron (TETRAHEDRON) (United Kingdom) 30 JAN 2006, 62/5 (906-914)
CODEN: TETRA ISSN: 0040-4020
PUBLISHER ITEM IDENTIFIER: S0040402005018727
DOCUMENT TYPE: Journal ; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 39

DRUG DESCRIPTORS:

****nucleoside*** derivative--drug development--dv; *cyclopentene derivative
unclassified drug

MEDICAL DESCRIPTORS:

molecule; laboratory; methodology; drug ***synthesis***; chemical procedures; nonhuman; article; priority journal

18/3,DE/22 (Item 2 from file: 73)

DIALOG(R)File 73:EMBASE
(c) 2006 Elsevier B.V. All rts. reserv.

13413651 EMBASE No: 2005461030

Rapid access to 2prime-branched-carbocyclic ***nucleosides*** and their 4prime-epimers from 2-alkyl-cyclopentene-1-ones
Meillon J.-C.; Griffe L.; ***Storer R.***; Gosselin G.
G. Gosselin, Laboratoire Cooperatif Idenix-CNRS, Universite Montpellier II, Place Eugene Bataillon, 34095 Montpellier Cedex 5 France
AUTHOR EMAIL: gosselin@univ-montp2.fr
Nucleosides, Nucleotides and Nucleic Acids (NUCLEOSIDES NUCLEOTIDES NUCLEIC ACIDS) (United States) 2005, 24/5-7 (695-699)
CODEN: NNNAF ISSN: 1525-7770
DOCUMENT TYPE: Journal ; Conference Paper
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 17

DRUG DESCRIPTORS:

*carbocyclic ***nucleoside***; *cyclopentene derivative
unclassified drug

MEDICAL DESCRIPTORS:

*epimer
synthesis; reaction analysis; alkylation; conference paper

18/3,DE/23 (Item 3 from file: 73)

DIALOG(R)File 73:EMBASE
(c) 2006 Elsevier B.V. All rts. reserv.

13413645 EMBASE No: 2005461024

Synthesis*** of 2prime-C-methyl-beta-D-***ribofuranosylimidazo [4,5-d]-pyridazine derivatives (2-aza-3-deazapurine ***nucleoside*** analogues)

Leroy F.; Dukhan D.; Durka M.; Chaves D.; Bragnier N.; ***Storer R.***; Gosselin G.

G. Gosselin, Laboratoire Cooperatif Idenix-CNRS, Universite Montpellier II, Place Eugene Bataillon, Case Courrier 008, 34095 Montpellier Cedex 5 France

AUTHOR EMAIL: gosselin@univ-montp2.fr

Nucleosides, Nucleotides and Nucleic Acids (NUCLEOSIDES NUCLEOTIDES

NUCLEIC ACIDS) (United States) 2005, 24/5-7 (667-669)

CODEN: NNNAF ISSN: 1525-7770

DOCUMENT TYPE: Journal ; Conference Paper

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 14

DRUG DESCRIPTORS:

*ribose--drug analysis--an; *ribose--drug development--dv; *ribose
--pharmacology--pd; *imidazole derivative--drug analysis--an; *imidazole
derivative--drug development--dv; *imidazole derivative--pharmacology--pd;
*pyridazine derivative--drug analysis--an; *pyridazine derivative--drug
development--dv; *pyridazine derivative--pharmacology--pd; *heterocyclic
compound--drug analysis--an; *heterocyclic compound--drug development--dv;
*heterocyclic compound--pharmacology--pd; *purine derivative--drug analysis
--an; *purine derivative--drug development--dv; *purine derivative
--pharmacology--pd; ***nucleoside*** derivative--drug analysis--an; *
nucleoside derivative--drug development--dv; ***nucleoside***
derivative--pharmacology--pd
methyl group--drug analysis--an; methyl group--drug development--dv; methyl
group--pharmacology--pd; antiviral agent--drug analysis--an; antiviral
agent--drug development--dv; antiviral agent--pharmacology--pd

MEDICAL DESCRIPTORS:

drug ***synthesis***; reaction analysis; antiviral activity; drug screening
; structure activity relation; nonhuman; conference paper

18/3,DE/24 (Item 4 from file: 73)

DIALOG(R)File 73:EMBASE

(c) 2006 Elsevier B.V. All rts. reserv.

06598763 EMBASE No: 1996263470

Naphthalene, phenanthrene, and pyrene as DNA base analogues:

Synthesis, structure, and fluorescence in DNA

Ren R.X.-F.; ***Chaudhuri N.C.***; Paris P.L.; Rumney IV S.; Kool E.T.

Department of Chemistry, University of Rochester, Rochester, NY 14627

United States

Journal of the American Chemical Society (J. AM. CHEM. SOC.) (United
States) 1996, 118/33 (7671-7678)

CODEN: JACSA ISSN: 0002-7863

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

DRUG DESCRIPTORS:

*polycyclic aromatic hydrocarbon derivative--drug toxicity--to

MEDICAL DESCRIPTORS:

*dna structure; *dna ***synthesis***

article; fluorescence; nuclear magnetic resonance

18/3,DE/25 (Item 5 from file: 73)

DIALOG(R)File 73:EMBASE

(c) 2006 Elsevier B.V. All rts. reserv.

06179566 EMBASE No: 1995215527

Erratum: An efficient method for the ***synthesis*** of aromatic C-

nucleosides (Tetrahedron Letters (1995) 36 (1795-1798))

Chaudhuri N.C.***; Kool E.T.

Tetrahedron Letters (TETRAHEDRON LETT.) (United Kingdom) 1995, 36/28
(4910)

CODEN: TELEA ISSN: 0040-4039

DOCUMENT TYPE: Journal; Erratum

LANGUAGE: ENGLISH

MEDICAL DESCRIPTORS:

*error

erratum

18/3,DE/26 (Item 6 from file: 73)

DIALOG(R)File 73:EMBASE

(c) 2006 Elsevier B.V. All rts. reserv.

05601992 EMBASE No: 1994014266

Synthesis*** and anti-HIV-1 activity of a series of imidazo(1,5-b)pyridazines

Livermore D.G.H.; Bethell R.C.; Cammack N.; Hancock A.P.; Hann M.M.; Green D.V.S.; Lamont R.B.; Noble S.A.; Orr D.C.; Payne J.J.; Ramsay M.V.J.; Shingler A.H.; Smith C.; ***Storer R.***; Williamson C.; Willson T.

Computational Chemistry Group, Medicinal Chemistry II Department, Glaxo Group Research Ltd., Greenford Road, Greenford, Middlesex United Kingdom
Journal of Medicinal Chemistry (J. MED. CHEM.) (United States) 1993, 36/24 (3784-3794)

CODEN: JMCMA ISSN: 0022-2623

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

DRUG DESCRIPTORS:

*antivirus agent--drug analysis--an; *antivirus agent--drug development--dv;
*antivirus agent--pharmacology--pd
zidovudine; unclassified drug

MEDICAL DESCRIPTORS:

*antiviral activity; *drug ***synthesis***; *human immunodeficiency virus infection
animal cell; article; cell growth; controlled study; crystal structure;
drug binding site; drug mechanism; drug structure; enzyme inhibition;
growth inhibition; nonhuman; structure activity relation; virus replication
; X ray crystallography

18/3,DE/27 (Item 7 from file: 73)

DIALOG(R)File 73:EMBASE

(c) 2006 Elsevier B.V. All rts. reserv.

04902615 EMBASE No: 1992042830

Synthesis*** and biological evaluation of carbocyclic analogues of ribavirin

Noble S.A.; Beddall N.E.; Beveridge A.J.; Marr C.L.P.; Mo C.L.; Myers P.L.; Penn C.R.; ***Storer R.***; Woods J.M.

Department of Medicinal Chemistry, Glaxo Group Research Ltd., Greenford, Middlesex UB6 0HE United Kingdom

Nucleosides and Nucleotides (NUCLEOSIDES NUCLEOTIDES) (United States) 1991, 10/1-3 (487-490)

CODEN: NUNUD ISSN: 0732-8311

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

DRUG DESCRIPTORS:

*acyclic ***nucleoside***--drug comparison--cm; *acyclic ***nucleoside
--drug analysis--an; *acyclic ***nucleoside***--drug development--dv; *
ribavirin derivative--drug comparison--cm; *ribavirin derivative--drug
analysis--an; *ribavirin derivative--drug development--dv
adenosine kinase--endogenous compound--ec; inosinate dehydrogenase
--endogenous compound--ec; ribavirin--drug comparison--cm; rna polymerase
--endogenous compound--ec

MEDICAL DESCRIPTORS:

*enzyme inhibition; *influenza virus a
animal cell; animal tissue; article; drug ***synthesis***; leukemia l 1210;
liver; mouse; rat

18/3,DE/28 (Item 8 from file: 73)

DIALOG(R)File 73:EMBASE

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04709095 EMBASE No: 1991202449

Approach to oxetane and furan ***nucleosides*** with an anomeric carbon
substituent: Nucleophilic substitution at highly hindered
alpha-bromo-oxetane- and -tetrahydrofuran-carboxylates

Choi S.; Witty D.R.; Fleet G.W.J.; Myers P.L.; ***Storer R.***; Wallis

C.J.; Watkin D.; Pearce L.

Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY United Kingdom
Tetrahedron Letters (TETRAHEDRON LETT.) (United Kingdom) 1991, 32/29 (3569-3572)

CODEN: TELEA ISSN: 0040-4039

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

DRUG DESCRIPTORS:

*furan derivative--drug analysis--an; *furan derivative--drug development--dv; ****nucleoside***--drug analysis--an; ****nucleoside***--drug development--dv; *oxetane derivative--drug analysis--an; *oxetane derivative--drug development--dv

MEDICAL DESCRIPTORS:

*chemical structure; ****synthesis***
article; crystallography; priority journal

18/3,DE/29 (Item 9 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2006 Elsevier B.V. All rts. reserv.

04613105 EMBASE No: 1991107148

Synthesis* of some mimics of nucleoside triphosphates**

Coe D.M.; Hilpert H.; Noble S.A.; Peel M.R.; Roberts S.M.; ***Storer
R.

Department of Chemistry, Exeter University, Stocker Road, Exeter EX4 4QD
United Kingdom

Journal of the Chemical Society - Series Chemical Communications (J. CHEM. SOC. SER. CHEM. COMMUN.) (United Kingdom) 1991, -/5 (312-314)

CODEN: JCCCA ISSN: 0022-4936

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH

DRUG DESCRIPTORS:

*nucleotide--drug analysis--an; *nucleotide--drug development--dv; *phosphonic acid derivative--drug analysis--an; *phosphonic acid derivative--drug development--dv

unclassified drug

MEDICAL DESCRIPTORS:

****synthesis***
article

18/3,DE/30 (Item 10 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2006 Elsevier B.V. All rts. reserv.

04606896 EMBASE No: 1991100939

Oxetane ***nucleosides*** with fluorine and azide substituents:

Nucleophilic displacements on an oxetane ring

Wang Y.; Fleet G.W.J.; Wilson F.X.; ***Storer R.***; Myers P.L.; Wallis C.J.; Doherty O.; Watkin D.J.; Vogt K.; Witty D.R.; Peach J.M.

Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY United Kingdom

Tetrahedron Letters (TETRAHEDRON LETT.) (United Kingdom) 1991, 32/13 (1675-1678)

CODEN: TELEA ISSN: 0040-4039

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

DRUG DESCRIPTORS:

*antivirus agent--drug comparison--cm; *antivirus agent--drug analysis--an; *antivirus agent--drug development--dv; ****nucleoside***--drug analysis--an; ****nucleoside***--drug development--dv; ****nucleoside***--drug comparison--cm; *oxetane derivative--drug development--dv; *oxetane derivative--drug analysis--an; *oxetane derivative--drug comparison--cm; oxetanocin--drug comparison--cm; unclassified drug

MEDICAL DESCRIPTORS:

*antiviral activity; *drug ***synthesis***; *human immunodeficiency virus
article; nonhuman; priority journal

18/3,DE/31 (Item 11 from file: 73)
DIALOG(R)File 73:EMBASE
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04539613 EMBASE No: 1991033656

Synthesis* of (+/-)-2'-oxa-carbocyclic-2',3'-dideoxynucleosides as
potential anti-HIV agents**

Bamford M.J.; Humber D.C.; ***Storer R.

Department of Medicinal Chemistry, Glaxo Group Research Ltd., Greenford,
Middlesex UB6 0HE United Kingdom

Tetrahedron Letters (TETRAHEDRON LETT.) (United Kingdom) 1991, 32/2
(271-274)

CODEN: TELEA ISSN: 0040-4039

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

DRUG DESCRIPTORS:

*2',3' dideoxynucleoside--drug analysis--an; *2',3' dideoxynucleoside--drug
development--dv; *antivirus agent--drug analysis--an; *antivirus agent
--drug development--dv; ****nucleoside***--drug analysis--an; *
nucleoside--drug development--dv

MEDICAL DESCRIPTORS:

*antiviral activity; *drug ***synthesis***; *human immunodeficiency virus
article; cell culture; drug structure; nonhuman; priority journal

18/3,DE/32 (Item 12 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2006 Elsevier B.V. All rts. reserv.

04134522 EMBASE No: 1990017064

Synthesis* of compounds active against HIV: ***Preparation*** of
6'-fluorocarbocyclic AZT (AZT = 3'-deoxy-3'-azidothymidine)**

Fletcher C.A.; Hilpert H.; Myers P.L.; Roberts S.M.; ***Storer R.

Department of Chemistry, Exeter University, Exeter EX4 4QD United
Kingdom

Journal of the Chemical Society - Series Chemical Communications (J.
CHEM. SOC. SER. CHEM. COMMUN.) (United Kingdom) 1989, -/22 (1707-1709)

CODEN: JCCCA ISSN: 0022-4936

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH

DRUG DESCRIPTORS:

*rna directed dna polymerase; *carbocyclic ***nucleoside***--drug analysis
--an; *carbocyclic ***nucleoside***--drug development--dv; *carbocyclic
nucleoside--drug comparison--cm; *zidovudine--drug analysis--an; *
zidovudine--drug development--dv; *zidovudine--drug comparison--cm; *
zidovudine 5' triphosphate--drug analysis--an; *zidovudine 5' triphosphate
--drug development--dv; *zidovudine 5' triphosphate--drug comparison--cm
unclassified drug

MEDICAL DESCRIPTORS:

*drug screening; *drug ***synthesis***; *human immunodeficiency virus
cell culture; nuclear magnetic resonance; nonhuman; article

18/3,DE/33 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2006 INIST/CNRS. All rts. reserv.

11859030 PASCAL No.: 95-0022487

Synthesis* of some carbocyclic ***nucleoside*** analogues based on a
bicyclo(3.1.0)hexane ring system**

GOODING H; ROBERTS S M; ***STORER R

Exeter univ., dep. chemistry, Devon EX4 4QD, United Kingdom

Journal: Journal of the Chemical Society. Perkin transactions. I, 1994 (

14) 1891-1892

Language: English

English Descriptors: Pyrimidine ***nucleoside***; Purine nucleotide; Analog
; Bicyclic compound; Secondary alcohol; Thymine-ENT

French Descriptors: Pyrimidine ***nucleoside***; Purine nucleotide;
Analogue; Compose bicyclique; Alcool secondaire; Thymine-ENT; Bicyclo
(3.1.0) hexan-6-ol(3-hydroxy) benzoate; Purine(2,6-dichloro)-ENT;
Guanine(9-(6-(hydroxymethyl) bicyclo (3.1.0) hex-3-yl))-FIN;
Adenine(9-(6-(hydroxymethyl) bicyclo (3.1.0) hex-3-yl))-FIN;
Thymine(1-(6-(hydroxymethyl) bicyclo (3.1.0) hex-3-yl))-FIN

Spanish Descriptors: Pirimidina ***nucleosido***; Purina nucleotido;
Analogo; Compuesto biciclico; Alcohol secundario; Timina-ENT

18/3,DE/34 (Item 2 from file: 144)

DIALOG(R)File 144:Pascal

(c) 2006 INIST/CNRS. All rts. reserv.

11282940 PASCAL No.: 94-0102516

Synthesis* of optically active 5'-noraristeromycin :**
enzyme-catalysed kinetic resolution of 9-(4-hydroxycyclopent-2-enyl)purines

MERLO V; REECE F J; ROBERTS S M; GREGSON M; ***STORER R

Exeter univ., dep. chemistry, Exeter Devon EX4 4QD, United Kingdom

Journal: Journal of the Chemical Society. Perkin transactions. I, 1993 (15) 1717-1718

Language: English

English Descriptors: Acetylation; Enantioselectivity; Enzymatic reaction;
Triacylglycerol lipase; Purine ***nucleoside***; Analog; Monocyclic
compound; Ethylenic compound; Secondary alcohol; Optical activity;
Dideoxynucleoside

French Descriptors: Acetylation; Enantioselectivite; Reaction enzymatique;
Triacylglycerol lipase; Purine ***nucleoside***; Analogue; Compose
monocyclique; Compose ethylenique; Alcool secondaire; Activite optique;
6-Oxabicyclo (3.1.0) hex-2-ene-ENT; Purine(6-chloro)-ENT;
Purine(6-chloro-9-(4-hydroxycyclopent-2-enyl));
Purine(9-(4-acetoxycyclopent-2-enyl)-6-chloro)-FIN; Acetique acide ester
vinyle-ENT; Adenine(9-(4-acetoxycyclopent-2-enyl))-FIN;
Didesoxynucleoside

Spanish Descriptors: Acetilacion; Enantioselectividad; Reaccion enzimatica;
Triacylglycerol lipase; Purina ***nucleosido***; Analogo; Compuesto
monociclico; Compuesto etilenico; Alcohol secundario; Actividad optica

18/3,DE/35 (Item 3 from file: 144)

DIALOG(R)File 144:Pascal

(c) 2006 INIST/CNRS. All rts. reserv.

10699954 PASCAL No.: 93-0209253

The potential of carbocyclic ***nucleosides*** for the treatment of AIDS
: ***synthesis*** of some diphosphorylphosphates possessing potent activity
against HIV-coded reverse transcriptase

COE D M; ROBERTS S M; ***STORER R***

Exeter univ., dep. chemistry, Exeter Devon EX4 4QD, United Kingdom

Journal: Perkin transactions. 1, 1992 (20) 2695-2704

Language: English

English Descriptors: Purine nucleotide; Pyrimidine nucleotide; Analog;
Ammonium Compounds; Triphosphates; Organic phosphonate; Monocyclic
compound; Ethylenic compound; Biological activity; Antiviral; In vitro;
Human immunodeficiency virus; Dideoxynucleotide

French Descriptors: Purine nucleotide; Pyrimidine nucleotide; Analogue; Ammonium Compose; Triphosphate; Phosphonate organique; Compose monocyclique; Compose ethylenique; Activite biologique; Antiviral; In vitro; Virus immunodeficiency humaine; Thymine(1-(3-(triphosphonomethoxy) cyclopentyl))-FIN; Guanine(9-(4-(triphosphonomethoxy) cyclopent-2-enyl))-FIN; 6-Oxabicyclo (3.1.0) hex-2-ene-ENT; Thymine(1-(4-(phosphonomethoxy) cyclopent-2-enyl))-FIN; Guanine(9-(3-phosphonomethoxy) cyclopentyl))-FIN; Didesoxynucleotide

Spanish Descriptors: Purina nucleotido; Pirimidina nucleotido; Analogo; Amonio Compuesto; Trifosfato; Fosfonato organico; Compuesto monociclico; Compuesto etilenico; Actividad biologica; Antiviral; In vitro; Human immunodeficiency virus

18/3,DE/36 (Item 4 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2006 INIST/CNRS. All rts. reserv.

09812941 PASCAL No.: 92-0015271
The potential for using carboxylic ***nucleosides*** for the treatment of AIDS. I, ***Preparation*** of some analogues for azidothymidine (AZT)
HIGHCOCK R M; HILPERT H; MYERS P L; ROBERTS S M; ***STORER R***
Glaxo group res., dep. analytical chemistry, Greenford Middx. UB6 OHE, United Kingdom
Journal: Perkin transactions. 1, 1991 (5) 1127-1134
Language: English

English Descriptors: Pyrimidine ***nucleoside***; Pyrimidine nucleotide; Analog; Cyclitol; Organic azide; Biological activity; Antiviral; Human immunodeficiency virus; X ray diffraction; Crystalline structure; Molecular structure; Experimental study; Organic compounds

French Descriptors: Pyrimidine ***nucleoside***; Pyrimidine nucleotide; Analogue; Cyclitol; Azide; Activite biologique; Antiviral; Virus immunodeficiency humaine; Diffraction RX; Structure cristalline; Structure moleculaire; Etude experimentale; Compose organique; Triphosphate organique; Thymine(1-(3-azido-5-fluoro-4-(hydroxymethyl) cyclopentyl)); Thymine(1-(2,4-difluoro-4-(hydroxymethyl) cyclopentyl))
Spanish Descriptors: Pirimidina ***nucleosido***; Pirimidina nucleotido; Analogo; Ciclitol; Azida organica; Actividad biologica; Antiviral; Human immunodeficiency virus; Difraccion RX; Estructura cristalina; Estructura molecular; Estudio experimental; Compuesto organico

Other Descriptors: Roentgenbeugung; Kristallstruktur; Experimentelle Untersuchung; Organische Verbindung

18/3,DE/37 (Item 5 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2006 INIST/CNRS. All rts. reserv.

09563823 PASCAL No.: 91-0354253
Attempted ring contraction of alpha -triflates of 3-azido- and 3-fluoro-gamma -lactones to oxetanes
ELLIOTT R P; FLEET G W J; VOGT K; WILSON F X; WANG Y; WITTY D R; ***STORER R***; MYERS P L; WALLIS C J
Oxford univ., Dyson Perrins lab., Oxford OX1 3QY, United Kingdom
Journal: Petrahedron: asymmetry, 1990, 1 (10) 715-718
Language: English

English Descriptors: Ring contraction; Organic azide; ***Nucleoside***; Ethylenic compound; Monocyclic compound; Oxygen heterocycle; Fluorine Organic compounds; Silicon Organic compounds; Lactone

French Descriptors: Contraction cycle; Azide; ***Nucleoside***; Compose ethylenique; Compose monocyclique; Heterocycle oxygene; Fluor Compose

organique; Silicium Compose organique; Lactone; Oxetane derive-FIN;
Furan-2-one(5-benzylloxymethyl-perhydro-2-trifluoromesyl)-ENT

Spanish Descriptors: Contraccion ciclo; Azida organica; ***Nucleosido***;
Compuesto etilenico; Compuesto monociclico; Heterociclo oxigeno; Fluor;
Silicio; Lactona

18/3,DE/38 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

19569054 PMID: 16247991
Synthesis* of 2'-C-methyl-4'-thio ribonucleosides.**
Dukhan D; Bosc E; Peyronnet J; ***Storer R***; Gosselin G
Laboratoire Cooperatif Idenix-CNRS, Universite Montpellier II,
Montpellier Cedex 5, France.
Nucleosides, nucleotides & nucleic acids (United States) 2005, 24
(5-7) p577-80, ISSN 1525-7770--Print Journal Code: 100892832
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Descriptors: *Deoxycytidine--analogs and derivatives--AA; *Thionucleoside
s--chemistry--CH; Antiviral Agents--pharmacology--PD; Carbohydrate
Conformation; Carbohydrate Sequence; Deoxycytidine--pharmacology--PD;
Models, Chemical; ***Nucleosides***--chemistry--CH; RNA Viruses--genetics
--GE; Thionucleosides--chemical ***synthesis***--CS

18/3,DE/39 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2006 JPO & JAPIO. All rts. reserv.

06543060
1,3-OXATHIOLANE ***NUCLEOSIDE*** ANALOG

PUB. NO.: 2000-128787 [JP 2000128787 A]
PUBLISHED: May 09, 2000 (20000509)
INVENTOR(s): JONATHAN ALAN VICTOR COATES
MUTTON IAN MARTIN
CHARLES RICHARD PENN
STORER RICHARD
WILLIAMSON CHRISTOPHER
APPLICANT(s): BIOCHEM PHARMA INC
APPL. NO.: 11-300923 [JP 99300923]
Division of 10-162127 [JP 98162127]
FILED: May 02, 1991 (19910502)
PRIORITY: 9009861 [GB 909861], GB (United Kingdom), May 02, 1990
(19900502)

18/3,DE/40 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2006 JPO & JAPIO. All rts. reserv.

06138613
1,3-OXATHIOLANE ***NUCLEOSIDE*** ANALOG

PUB. NO.: 11-080153 [JP 11080153 A]
PUBLISHED: March 26, 1999 (19990326)
INVENTOR(s): JONATHAN ALAN VICTOR COATES
MUTTON IAN MARTIN
CHARLES RICHARD PENN
STORER RICHARD
WILLIAMSON CHRISTOPHER

10/735,408

APPLICANT(s): BIOCHEM PHARMA INC
APPL. NO.: 10-162127 [JP 98162127]
FILED: June 10, 1998 (19980610)
PRIORITY: 9009861 [GB 909861], GB (United Kingdom), May 02, 1990
(19900502)

18/3,DE/41 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0015699890

WPI ACC NO: 2006-263877/200627

XRAM Acc No: C2006-085984

New modified ***nucleosides*** useful for treatment of prophylaxis of
flavivirus, pestivirus and hepacivirus infection e.g. hepatitis C virus,
are virus polymerase inhibitors

Patent Assignee: CENT NAT RECH SCI (CNRS); IDENIX CAYMAN LTD (IDEN-N)

Inventor: EGAN J; GOSSELIN G; SOMMADOSSI J; ***STORER R***

1 patents, 110 countries

Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
WO 2006037028	A2	20060406	WO 2005US34786	A	20050926	200627 B

Priority Applications (no., kind, date): US 2004613085 P 20040924

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2006037028	A2	EN	73	0	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW
BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR
HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK
MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY
TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES
FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO
SD SE SI SK SL SZ TR TZ UG ZM ZW

18/3,DE/42 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0015525789

WPI ACC NO: 2006-089938/200609

XRAM Acc No: C2006-032452

Use of 5-aza-7-deazapurine derivatives for treating e.g. flavivirus
infections, hepatitis C virus infections and HIV infection

Patent Assignee: CENT NAT RECH SCI (CNRS); DUKHAN D (DUKH-I); GOSSELIN G
(GOSS-I); IDENIX CAYMAN LTD (IDEN-N); LA COLLA P (LCOL-I); LEROY F
(LERO-I); SEELA F (SEEL-I); STORER R (STOR-I); UNIV CAGLIARI (UYCA-N);
UNIV OSNABRUCK LAB ORGANIC & BIORGANIC (UYOS-N)

Inventor: DUKHAN D; GOSSELIN G; LA COLLA P; LEROY F; SEELA F; ***STORER***
*** R***

2 patents, 109 countries

Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
WO 2006000922	A2	20060105	WO 2005IB2768	A	20050623	200609 B
US 20060040944	A1	20060223	US 2004582182	P	20040623	200615 E
			US 2005166498	A	20050623	

Priority Applications (no., kind, date): US 2005166498 A 20050623; US
2004582182 P 20040623

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2006000922	A2	EN	115	0		

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW
 BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR
 HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN
 MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ
 TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES
 FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD
 SE SI SK SL SZ TR TZ UG ZM ZW

US 20060040944 A1 EN Related to Provisional US 2004582182

18/3,DE/43 (Item 3 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
 (c) 2006 The Thomson Corporation. All rts. reserv.

0014784721

WPI ACC NO: 2005-132404/200514

XRAM Acc No: C2005-043642

New beta-D- and beta-L-***nucleoside*** analogues used for treating host
 infected with flavivirus (flaviviridae) or pestivirus including hepatitis C
 virus

Patent Assignee: CENT NAT RECH SCI (CNRS); CNRS CENT NAT RECH SCI (CNRS);
 DUKHAN D (DUKH-I); GOSSELIN G (GOSS-I); IDENIX CAYMAN LTD (IDEN-N);
 LEROY F (LERO-I); STORER R (STOR-I); UNIV MONTPELLIER (UYMO-N); UNIV
 MONTPELLIER II (UYMO-N)

Inventor: DUKHAN D; DUKHAN D; GOSSELIN G; LEROY F; ***STORER R***

5 patents, 107 countries

Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2005009418	A2	20050203	WO 2004IB2703	A	20040726	200514 B
US 20050075309	A1	20050407	US 2003490216	P	20030725	200525 E
			US 2004900008	A	20040726	
EP 1658302	A2	20060524	EP 2004744307	A	20040726	200635 E
			WO 2004IB2703	A	20040726	
NO 200600914	A	20060425	NO 2006914	A	20060224	200637 E
AU 2004258750	A1	20050203	AU 2004258750	A	20040726	200660 E

Priority Applications (no., kind, date): US 2003490216 P 20030725; US
 2004900008 A 20040726

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2005009418	A2	EN	139	3		

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW
 BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR
 HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW
 MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR
 TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES
 FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI
 SK SL SZ TR TZ UG ZM ZW

US 20050075309 A1 EN Related to Provisional US 2003490216

EP 1658302 A2 EN PCT Application WO 2004IB2703

Based on OPI patent WO 2005009418

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI

FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR

AU 2004258750 A1 EN Based on OPI patent WO 2005009418

18/3,DE/44 (Item 4 from file: 350)
 DIALOG(R)File 350:Derwent WPIX

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0013998993

WPI ACC NO: 2004-180195/200417

Related WPI Acc No: 2004-122412; 2004-132680; 2004-480899; 2005-214393;
2006-545893

XRAM Acc No: C2004-071157

New 1',2',3' or 4'-branched beta-D or beta-L ***nucleoside*** prodrugs
useful for treating Flaviviridae virus infection e.g. hepatitis C virus
infection in a host

Patent Assignee: CENT NAT RECH SCI (CNRS); CNRS CENT NAT RECH SCI (CNRS);
IDENIX CAYMAN LTD (IDEN-N); UNIV CAGLIARI (UYCA-N); UNIV STUDI CAGLIARI
(UYCA-N)

Inventor: GOSSELIN G; LA COLLA P; SOMMADOSSI J; ***STORER R***

6 patents, 104 countries

Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
WO 2004003000	A2	20040108	WO 2003IB3901	A	20030627	200417 B
AU 2003263412	A1	20040119	AU 2003263412	A	20030627	200447 E
EP 1525209	A2	20050427	EP 2003761749	A	20030627	200529 E
			WO 2003IB3901	A	20030627	
NO 200500466	A	20050323	WO 2003IB3901	A	20030627	200540 E
			NO 2005466	A	20050127	
JP 2005537242	W	20051208	WO 2003IB3901	A	20030627	200580 E
			JP 2004517162	A	20030627	
MX 2004012779	A1	20050901	WO 2003IB3901	A	20030627	200615 E
			MX 200412779	A	20041216	

Priority Applications (no., kind, date): US 2003466194 P 20030428; US
2002392350 P 20020628; US 2002392351 P 20020628; US 2003470949 P
20030514

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
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WO 2004003000	A2	EN	498	22	
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National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY
BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ
NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA
UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG CH CY CZ DE DK EA EE ES FI
FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ
TR TZ UG ZM ZW

AU 2003263412	A1	EN			Based on OPI patent WO 2004003000
EP 1525209	A2	EN			PCT Application WO 2003IB3901

Based on OPI patent WO 2004003000

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI
FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

NO 200500466	A	NO			PCT Application WO 2003IB3901
JP 2005537242	W	JA	445		PCT Application WO 2003IB3901
					Based on OPI patent WO 2004003000
MX 2004012779	A1	ES			PCT Application WO 2003IB3901
					Based on OPI patent WO 2004003000

18/3,DE/45 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0010966220

WPI ACC NO: 2001-589740/200166

XRAM Acc No: C2001-174824

Use of ***nucleoside*** analogs for treating or preventing Flavivirus
infections, particularly hepatitis C

Patent Assignee: BIOCHEM PHARMA INC (BIOC-N); CHENG Y (CHEN-I); ISMAILI H

M A (ISMA-I); LAVALLEE J (LAVA-I); SHIRE BIOCHEM INC (SHIR-N);
 SIDDIQUI A (SIDDI-I); STORER R (STOR-I)
 Inventor: ALAOUI-ISHMAILI M; ALAOUI-ISMAHILI M; ALAOUI-ISMAILI M; CHENG Y;
 CHENG Y X; ISMAILI H M A; LAVALLEE J; LAVALLEE J F; SIDDIQUI A; SIDDIQUI
 M A; ***STORER R***

16 patents, 93 countries

Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2001060315	A2	20010823	WO 2001CA197	A	20010219	200166 B
AU 200135278	A	20010827	AU 200135278	A	20010219	200176 E
US 20020019363	A1	20020214	US 2000183349	P	20000218	200214 E
			US 2001785235	A	20010220	
NO 200203884	A	20021017	WO 2001CA197	A	20010219	200281 E
			NO 20023884	A	20020816	
EP 1296690	A2	20030402	EP 2001907276	A	20010219	200325 E
			WO 2001CA197	A	20010219	
KR 2003005197	A	20030117	KR 2002710760	A	20020819	200334 E
CZ 200202825	A3	20030514	WO 2001CA197	A	20010219	200337 E
			CZ 20022825	A	20010219	
SK 200201192	A3	20030603	WO 2001CA197	A	20010219	200345 E
			SK 20021192	A	20010219	
JP 2003523978	W	20030812	JP 2001559414	A	20010219	200355 E
			WO 2001CA197	A	20010219	
CN 1427722	A	20030702	CN 2001808127	A	20010219	200361 E
HU 200301112	A2	20030828	WO 2001CA197	A	20010219	200363 E
			HU 20031112	A	20010219	
MX 2002008078	A1	20021201	WO 2001CA197	A	20010219	200377 E
			MX 20028078	A	20020819	
ZA 200206506	A	20040128	ZA 20026506	A	20020814	200420 E
US 6784161	B2	20040831	US 2000183349	P	20000218	200457 E
			US 2001785235	A	20010220	
NZ 521210	A	20041126	NZ 521210	A	20010219	200479 E
			WO 2001CA197	A	20010219	
US 20040248844	A1	20041209	US 2000183349	P	20000218	200481 E
			US 2001785235	A	20010220	
			US 2004887292	A	20040709	

Priority Applications (no., kind, date): US 2004887292 A 20040709; US
 2001785235 A 20010220; US 2000183349 P 20000218

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2001060315	A2	EN	51	0	
National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
Regional Designated States,Original: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
AU 200135278	A	EN			Based on OPI patent WO 2001060315
US 20020019363	A1	EN			Related to Provisional US 2000183349
NO 200203884	A	NO			PCT Application WO 2001CA197
EP 1296690	A2	EN			PCT Application WO 2001CA197
Based on OPI patent WO 2001060315					
Regional Designated States,Original: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
CZ 200202825	A3	CS			PCT Application WO 2001CA197
Based on OPI patent WO 2001060315					
SK 200201192	A3	SK			PCT Application WO 2001CA197
Based on OPI patent WO 2001060315					
JP 2003523978	W	JA	57		PCT Application WO 2001CA197
Based on OPI patent WO 2001060315					
HU 200301112	A2	HU			PCT Application WO 2001CA197
Based on OPI patent WO 2001060315					
MX 2002008078	A1	ES			PCT Application WO 2001CA197
Based on OPI patent WO 2001060315					

10/735,408

ZA 200206506 A EN 60
US 6784161 B2 EN Related to Provisional US 2000183349
NZ 521210 A EN PCT Application WO 2001CA197
Based on OPI patent WO 2001060315
US 20040248844 A1 EN Related to Provisional US 2000183349
Continuation of application US
2001785235
Continuation of patent US 6784161

18/3,DE/46 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0010833720
WPI ACC NO: 2001-451356/200148
XRAM Acc No: C2001-136177
Use of ***nucleoside*** analogs for treating or preventing Flaviviridae
viral infection, e.g. hepatitis C, or inhibiting or reducing the activity
of viral polymerase
Patent Assignee: BIOCHEM PHARMA INC (BIOC-N); VIROCHEM PHARMA INC
(VIRO-N)

Inventor: ***STORER R***
5 patents, 93 countries

Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2001032153	A2	20010510	WO 2000CA1316	A	20001103	200148 B
AU 200112620	A	20010514	AU 200112620	A	20001103	200149 E
EP 1225899	A2	20020731	EP 2000974218	A	20001103	200257 E
			WO 2000CA1316	A	20001103	
US 6566365	B1	20030520	US 1999163394	P	19991104	200336 E
			US 1999163405	P	19991104	
			US 2000704832	A	20001103	
US 20030225037	A1	20031204	US 1999163394	P	19991104	200380 E
			US 1999163405	P	19991104	
			US 2000704832	A	20001103	
			US 2003397167	A	20030327	

Priority Applications (no., kind, date): US 2003397167 A 20030327; US
2000704832 A 20001103; US 1999163394 P 19991104; US 1999163405 P
19991104

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2001032153	A2	EN	76	0	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY
BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Regional Designated States,Original: AT BE CH CY DE DK EA ES FI FR GB GH
GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200112620 A EN Based on OPI patent WO 2001032153

EP 1225899 A2 EN PCT Application WO 2000CA1316

Based on OPI patent WO 2001032153

Regional Designated States,Original: AL AT BE CH CY DE DK ES FI FR GB GR
IE IT LI LT LU LV MC MK NL PT RO SE SI TR

US 6566365 B1 EN

Related to Provisional US 1999163394

Related to Provisional US 1999163405

US 20030225037 A1 EN

Related to Provisional US 1999163394

Related to Provisional US 1999163405

Division of application US 2000704832

Division of patent US 6566365

18/3,DE/47 (Item 7 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
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0005777363

WPI ACC NO: 1991-353701/199148

XRAM Acc No: C1991-152542

(-)-Cis-4-amino-1-(2-hydroxymethyl-1,3-oxathiolanyl)-1H-pyrimidinone -
 useful in treating viral infections, e.g. HIV has lower cytotoxicity than
 (plus)-enantiomer

Patent Assignee: BIOCHEM PHARMA INC (BIOC-N); COATES J A (COAT-I); IAF
 BIO CHEM INT INC (IAFB-N); IAF BIOCHEM INT (IAFB-N); IAF BIOCHEM INT
 INC (IAFB-N); MUTTON I M (MUTT-I); PENN C R (PENN-I); SHILY BIOLOGICAL
 CHEM CO LTD (SHIL-N); STORER R (STOR-I); WILLIAMSON C (WILL-I)
 Inventor: CHARLES R P; COATES J; COATES J A; COATES J A V; COTZ J A V;
 JONATHAN A V C; MARTON I A; MUTTON I; MUTTON I M; PEN C R; PENN C; PENN C
 R; ***STORER R***; WILLIAMSON C

43 patents, 40 countries

Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 1991017159	A	19911114	WO 1991GB706	A	19910502	199148 B
AU 199177719	A	19911127				199210 E
PT 97520	A	19920131				199210 E
FI 199106165	A	19911230				199213 E
ZA 199103293	A	19920226	ZA 19913293	A	19910430	199214 E
NO 199200018	A	19920102	WO 1991GB706	A	19910502	199219 E
			NO 199218	A	19920102	
CS 199101251	A2	19920115	CS 19911251	A	19910430	199233 E
CN 1058214	A	19920129	CN 1991102778	A	19910430	199240 E
JP 5501117	W	19930304	JP 1991508513	A	19910502	199314 E
			WO 1991GB706	A	19910502	
HU 64335	T	19931228	WO 1991GB706	A	19910502	199405 E
			HU 1992302	A	19910502	
NZ 238017	A	19940627	NZ 238017	A	19910501	199426 E
AU 651345	B	19940721	AU 199177719	A	19910502	199432 E
EP 625150	A1	19941123	EP 1991920963	A	19910502	199445 E
			WO 1991GB706	A	19910502	
FI 199504183	A	19950906	WO 1991GB706	A	19910502	199548 E
			FI 19916165	A	19911230	
			FI 19954183	A	19950906	
IL 98025	A	19961016	IL 98025	A	19910502	199648 E
NO 180377	B	19961230	WO 1991GB706	A	19910502	199707 E
			NO 199218	A	19920102	
CN 1108655	A	19950920	CN 1991102778	A	19910430	199733 E
			CN 1994109429	A	19910430	
RO 112616	B1	19971128	RO 1991149033	A	19910502	199819 E
			WO 1991GB706	A	19910502	
SG 46383	A1	19980220	SG 19964002	A	19910502	199821 E
RU 2099338	C1	19971220	WO 1991GB706	A	19910502	199832 E
			SU 5010955	A	19911228	
KR 199607532	B1	19960605	WO 1991GB706	A	19910502	199919 E
			KR 1991702025	A	19911230	
JP 11080153	A	19990326	JP 1991508513	A	19910502	199923 E
			JP 1998162127	A	19910502	
JP 2927546	B2	19990728	JP 1991508513	A	19910502	199935 E
			WO 1991GB706	A	19910502	
JP 2000128787	A	20000509	JP 1998162127	A	19910502	200032 E
			JP 1999300923	A	19910502	
TW 366346	A	19990811	TW 1991102169	A	19910719	200032 E
JP 3062475	B2	20000710	JP 1991508513	A	19910502	200037 E
			JP 1998162127	A	19910502	
EP 1062950	A2	20001227	EP 1991920963	A	19910502	200102 E
			EP 2000118103	A	19910502	
MX 193792	A	19991022	MX 25621	A	19910502	200107 E
US 6180639	B1	20010130	WO 1991GB706	A	19910502	200108 E

CA 2059263	C	20010410	US 1992835964	A	19920220	
			CA 2059263	A	19910502	200124 E
			WO 1991GB706	A	19910502	
CA 2337748	A1	19911114	CA 2059263	A	19910502	200132 E
			CA 2337748	A	19910502	
CZ 288499	B6	20010613	CS 19911251	A	19910430	200138 E
CN 1326743	A	20011219	CN 1994109429	A	19910430	200226 E
			CN 1999126580	A	19910430	
US 20030004175	A1	20030102	US 1992835964	A	19920220	200305 E
			US 2001771701	A	20010130	
SK 283430	B6	20030701	CS 19911251	A	19910430	200352 E
PH 1199142376	B1	20010927	PH 199142376	A	19910430	200357 E
FI 111722	B1	20030915	WO 1991GB706	A	19910502	200362 E
			FI 19916165	A	19911230	
FI 111723	B1	20030915	WO 1991GB706	A	19910502	200362 E
			FI 19916165	A	19911230	
			FI 19954183	A	19950906	
CN 1036196	C	19971022	CN 1991102778	A	19910430	200455 E
CN 1056145	C	20000906	CN 1994109429	A	19940815	200471 E
TW 222448	B1	20041021	TW 1991106761	A	19910719	200532 E
US 20050250950	A1	20051110	US 1992835964	A	19920220	200574 E
			US 1995460854	A	19950605	
			US 2005182835	A	20050718	
CN 1154500	C	20040623	CN 1999126580	A	19940815	200612 E

Priority Applications (no., kind, date): WO 1991GB706 A 19910502; GB 19909861 A 19930502; GB 19909861 A 19900502

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 1991017159	A	EN				
National Designated States, Original: AU BG CA FI HU JP KR LK NO PL RO SU US						
Regional Designated States, Original: AT BE CH DE DK ES FR GB GR IT LU NL OA SE						
ZA 199103293	A	EN	34			
NO 199200018	A	NO				PCT Application WO 1991GB706
JP 5501117	W	JA	14			PCT Application WO 1991GB706
						Based on OPI patent WO 1991017159
HU 64335	T	HU				PCT Application WO 1991GB706
						Based on OPI patent WO 1991017159
NZ 238017	A	EN				
AU 651345	B	EN				Previously issued patent AU 9177719
						Based on OPI patent WO 1991017159
EP 625150	A1	EN				PCT Application WO 1991GB706
						Based on OPI patent WO 1991017159
Regional Designated States, Original: AT BE CH DE DK ES FR GB GR IT LI LU NL SE						
FI 199504183	A	FI				PCT Application WO 1991GB706
						Division of application FI 19916165
IL 98025	A	EN				
NO 180377	B	NO				PCT Application WO 1991GB706
						Previously issued patent NO 9200018
CN 1108655	A	ZH				Division of application CN 1991102778
RO 112616	B1	RO				PCT Application WO 1991GB706
						Based on OPI patent WO 1991017159
SG 46383	A1	EN				
RU 2099338	C1	RU	18	0		PCT Application WO 1991GB706
KR 199607532	B1	KO				PCT Application WO 1991GB706
JP 11080153	A	JA	15			Division of application JP 1991508513
JP 2927546	B2	JA	16			PCT Application WO 1991GB706
						Previously issued patent JP 05501117

10/735,408

JP 2000128787 A JA 15 Based on OPI patent WO 1991017159
Division of application JP 1998162127

TW 366346 A ZH
JP 3062475 B2 JA 15 Division of application JP 1991508513

Previously issued patent JP 11080153

EP 1062950 A2 EN Division of application EP 1991920963

Division of patent EP 625150

Regional Designated States, Original: AT BE CH DE DK ES FR GB GR IT LI LU
NL SE

US 6180639 B1 EN PCT Application WO 1991GB706
Based on OPI patent WO 1991017159

CA 2059263 C EN PCT Application WO 1991GB706
Based on OPI patent WO 1991017159

CA 2337748 A1 EN Division of application CA 2059263

CZ 288499 B6 CS Previously issued patent CS 9101251

CN 1326743 A ZH Division of application CN 1994109429

US 20030004175 A1 EN Continuation of application US
1992835964

SK 283430 B6 SK Continuation of patent US 6180639
Previously issued patent CS 9101251

PH 1199142376 B1 EN PCT Application WO 1991GB706

FI 111722 B1 FI Previously issued patent FI 9106165

FI 111723 B1 FI PCT Application WO 1991GB706
Division of application FI 19916165

Previously issued patent FI 9504183

TW 222448 B1 ZH

US 20050250950 A1 EN Continuation of application US
1992835964

Continuation of application US

1995460854 Continuation of patent US 6180639

18/3,DE/48 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0005431848
WPI ACC NO: 1991-031035/
XRAM Acc No: C1991-013258
New carbocyclic ***nucleoside*** (s) to treat viral diseases esp. Herpes -
are amino dihydroxy-fluorocyclopentyltriazolo pyrimidinone
Patent Assignee: GLAXO GROUP LTD (GLAX)
Inventor: BAXTER A D; BIGGADIKE K; BORTHWICK A D; CHI L M; KIRK B E; MO C L
; ***STORER R***; WEIR N G
9 patents, 21 countries

Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update
EP 410660	A	19910130	EP 1990308022	A	19900723	199105 B
AU 199059722	A	19910124				199111 E
PT 94797	A	19910320				199114 E
CA 2021784	A	19910125				199116 E
JP 3118384	A	19910520	JP 1990193206	A	19900723	199126 E
ZA 199005807	A	19910626	ZA 19905807	A	19900724	199131 E

10/735,408

US 5100896	A	19920331	US 1990556262	A	19900723	199216	E
NZ 234628	A	19930225	NZ 234628	A	19900724	199312	E
PH 27286	A	19930504	PH 199040890	A	19900724	199721	E

Priority Applications (no., kind, date): GB 198916854 A 19890724; GB 199011053 A 19900517

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
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EP 410660	A	EN				
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Regional Designated States,Original: AT BE CH DE ES FR GB GR IT LI LU NL SE

CA 2021784	A	EN				
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ZA 199005807	A	EN				
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US 5100896	A	EN	12			
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NZ 234628	A	EN				
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PH 27286	A	EN				
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18/3,DE/49 (Item 9 from file: 350).

DIALOG(R)File 350:Derwent WPIX

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0005425362

WPI ACC NO: 1991-024159/

XRAM Acc No: C1991-010363

2-Amino-1,9-dihydro-9-substd.-6-H-purine-6-one deriv. ***prepn***. - by hydrolysing new

3-(2-amino-6-(ar)-alkoxyamino-9-puriny)-5-hydroxymethyl-1,2-cyclopentane :diol derivs.

Patent Assignee: GLAXO GROUP LTD (GLAX)

Inventor: MO C L; ***STORER R***; TURNBULL J P

5 patents, 16 countries

Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
EP 409595	A	19910123	EP 1990307855	A	19900718	199104 B
CA 2021290	A	19910120				199116 E
JP 3135981	A	19910610	JP 1990188172	A	19900718	199129 E
US 5110926	A	19920505	US 1990553631	A	19900717	199221 E
EP 409595	A3	19920701	EP 1990307855	A	19900718	199333 E

Priority Applications (no., kind, date): GB 198916480 A 19890719

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
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EP 409595	A	EN				
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Regional Designated States,Original: AT BE CH DE ES FR GB GR IT LI LU NL SE

CA 2021290	A	EN				
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US 5110926	A	EN	7			
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EP 409595	A3	EN				
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18/3,DE/50 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2006 The Thomson Corporation. All rts. reserv.

0004838514

WPI ACC NO: 1989-214653/198930

Related WPI Acc No: 1990-281498; 1993-027002; 1996-496424; 1997-296870;

1998-347424; 1999-417985; 1999-571298; 2000-430251; 2003-478922

XRAM Acc No: C1989-095434

New triazolopyrimidine cpds. - useful as anticancer agents are

4-(5-amino-3H-1,2,3-triazolo (4,5-d)pyrimidinyl)-2-cyclo pentenyl carbinol derivs.

Patent Assignee: MINNESOTA UNIVERSITY (MINU); UNIV MINNESOTA (MINU)

Inventor: HUA M; MEI H J; MYERS P L; ***STORER R***; VINCE R

47 patents, 28 countries

Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update
EP 325460	A	19890726	EP 1989300510	A	19890119	198930 B
DE 3901502	A	19890727	DE 3901502	A	19890119	198931 E
HU 48887	T	19890728				198935 E
AU 198928671	A	19890720				198936 E
FR 2626002	A	19890721	FR 1989592	A	19890119	198936 E
NL 198900122	A	19890816	NL 1989122	A	19890119	198936 E
LU 87437	A	19890830				198938 E
NO 198900253	A	19890814				198938 E
SE 198900192	A	19890721				198938 E
DK 198900234	A	19890721				198939 E
GB 2217320	A	19891025	GB 198821011	A	19880907	198943 NCE
			GB 1988210117	A	19880907	
FI 198900286	A	19890721				198945 E
PT 89482	A	19891004				198945 E
ES 2010091	A	19891016	ES 1989184	A	19890119	199003 E
JP 1308282	A	19891212	JP 19898745	A	19890119	199004 E
ZA 198900440	A	19900131	ZA 1989440	A	19890119	199009 E
US 4916224	A	19900410	US 1988146252	A	19880120	199020 E
			US 1988278652	A	19881205	
US 4931559	A	19900605	US 1988146252	A	19880120	199026 E
			US 1988278652	A	19881205	
CN 1036015	A	19891004				199031 E
JP 2196788	A	19900803	JP 19898744	A	19890119	199037 E
GB 2243609	A	19911106	GB 199110987	A	19910521	199145 E
CH 679152	A	19911231				199204 E
GB 2243609	B	19920311	GB 199110987	A	19890119	199211 E
GB 2217320	B	19920408	GB 19891187	A	19890119	199215 E
IT 1229531	B	19910904	IT 198947546	A	19890119	199233 E
AU 199210180	A	19920312	AU 198928671	A	19890124	199237 NCE
			AU 199210180	A	19920113	
BE 1003815	A4	19920623	BE 198961	A	19890119	199240 E
EP 325460	B1	19921021	EP 1989300510	A	19890119	199243 E
DE 68903226	E	19921126	DE 68903226	A	19890119	199249 E
			EP 1989300510	A	19890119	
AU 637015	B	19930513	AU 198928671	A	19890124	199326 NCE
			AU 199210180	A	19920113	
AT 198900106	A	19931115	AT 1989106	A	19890119	199348 E
AT 397801	B	19940515	AT 1989106	A	19890119	199422 E
ES 2052897	T3	19940716	EP 1989300510	A	19890119	199430 E
FI 93546	B	19950113	FI 1989286	A	19890119	199508 E
IL 88999	A	19941229	IL 88999	A	19890119	199513 E
IE 62275	B	19950125	IE 1989153	A	19890119	199517 E
RU 2067097	C1	19960927	SU 4613327	A	19890119	199720 E
SE 505213	C2	19970714	SE 1989192	A	19890119	199734 E
JP 2738946	B2	19980408	JP 19898745	A	19890119	199819 E
CA 1339803	C	19980407	CA 588611	A	19890119	199825 E
CA 1339896	C	19980602	CA 588614	A	19890119	199833 E
JP 2793825	B2	19980903	JP 19898744	A	19890119	199840 E
KR 127137	B1	19971229	KR 1989551	A	19890119	199952 E
RU 2114846	C1	19980710	RU 19924364	A	19890119	200001 E
PH 30732	A	19971017	PH 198938069	A	19890119	200157 E
DE 3901502	C2	20020613	DE 3901502	A	19890119	200240 E
DK 175131	B	20040614	DK 1989234	A	19890119	200440 E

Priority Applications (no., kind, date): AU 199210180 A 19920113; US 1988287321 A 19881223; GB 198821011 A 19880907; US 1988146252 A 19880120; US 1988278652 A 19881205

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
EP 325460	A	EN	13	0	

Regional Designated States, Original: BE CH DE ES FR GB GR IT LI LU NL SE
 LU 87437 A FR
 SE 198900192 A SV
 ZA 198900440 A EN
 CH 679152 A DE
 GB 2243609 B EN 0 4
 GB 2217320 B EN 0
 AU 199210180 A EN Division of application AU 198928671

BE 1003815 A4 NL 60 0
 EP 325460 B1 EN 18 0
 Regional Designated States, Original: AT BE CH DE ES FR GB GR IT LI LU NL SE
 DE 68903226 E DE Application EP 1989300510
 Based on OPI patent EP 325460
 AU 637015 B EN Division of application AU 198928671

Previously issued patent AU 9210180

AT 397801 B DE Previously issued patent AT 8900106

ES 2052897 T3 ES Application EP 1989300510
 Based on OPI patent EP 325460
 FI 93546 B FI Previously issued patent FI 8900286

IL 88999 A EN
 IE 62275 B EN
 RU 2067097 C1 RU 17 0
 SE 505213 C2 SV
 JP 2738946 B2 JA 9 0 Previously issued patent JP 01308282

CA 1339803 C EN
 CA 1339896 C EN
 JP 2793825 B2 JA 20 Previously issued patent JP 02196788

PH 30732 A EN
 DK 175131 B DA Previously issued patent DK 8900234

Germany

Publication No. DE 3901502 A (Update 198931 E)

Publication Date: 19890727

Didesoxydehydrocarbocyclische Nucleoside

Assignee: Regents of the University of Minnesota, Minneapolis, Minn., US

Inventor: Vince, Robert, St. Paul, Minn., US

Hua, Mei, Beijing, CN

Myers, Peter Leslie, Sydenham, Oxfordshire, GB

Storer, Richard, Pinner, Middlesex, GB

Agent: Zumstein sen., F., Dr.; Klingseisen, F., Dipl.-Ing., Pat.-Anwaelte,
8000 Muenchen

Language: DE

Application: DE 3901502 A 19890119 (Local application)

Priority: US 1988146252 A 19880120

US 1988278652 A 19881205

Original IPC: C07D-473/00 A61K-31/52 C07D-239/46 C07D-239/48 C07D-239/50

C07D-473/16 C07D-473/18 C07D-473/40 C07D-498/14

Current IPC: C07D-473/00(A) A61K-31/52 C07D-239/46 C07D-239/48 C07D-239/50

C07D-473/16 C07D-473/18 C07D-473/40 C07D-498/14

Claim:

* 1. Verbindung der Formel I

[CHE]worinX ist Wasserstoff, NRR1, SR, OR

oder Halogen; Z ist Wasserstoff, OR2 oder NRR1; wobei R, R1 und R2
 gleich oder verschieden sein können und ausgewählt sind aus
 Wasserstoff, C1-4-Alkyl und Aryl; und pharmazeutisch annehmbare
 Derivate davon.

Publication No. DE 3901502 C2 (Update 200240 E)

Publication Date: 20020613

****Didesoxydehydrocarbocyclische Nucleoside, diese enthaltende
pharmazeutische Formulierungen und
Pyrimidinylamino-cyclopentenylcarbinol-Derivate****

Assignee: Regents of the University of Minnesota, Minneapolis, Minn., US
(MINU)

Inventor: Vince, Robert, St. Paul, Minn., US

Hua, Mei, Beijing, CN

Myers, Peter Leslie, Sydenham, Oxfordshire, GB

Storer, Richard, Pinner, Middlesex, GB

Agent: Zumstein Klingseisen, 80331 Munchen

Language: DE

Application: DE 3901502 A 19890119 (Local application)

Priority: US 1988146252 A 19880120

GB 198821011 A 19880907

US 1988278652 A 19881205

Original IPC: C07D-473/00(A) A61K-31/52(B) C07D-239/46(B) C07D-239/48(B)

C07D-239/50(B) C07D-473/16(B) C07D-473/18(B) C07D-473/40(B)

Current IPC: C07D-473/00(A) A61K-31/52(B) C07D-239/46(B) C07D-239/48(B)

C07D-239/50(B) C07D-473/16(B) C07D-473/18(B) C07D-473/40(B)

Claim: 1. Didesoxydehydrocarbocyclische Nucleoside der Formel I:

*

[CHE 0056.0001]worinX Wasserstoff, NRR1, SR, OR oder Halogen ist; undZ
Wasserstoff, OR2 oder NRR1 ist; wobei R, R1 und R2 gleich oder
verschieden sein können und ausgewählt sind aus Wasserstoff,
C1-4-Alkyl, Phenyl, Toly, Xyl, Anisyl und Phen-(C1-4)-alkyl; und
deren pharmazeutisch annehmbare Salze, Ester oder Salze dieser
Ester.

Publication No. DE 68903226 E (Update 199249 E)

Publication Date: 19921126

Assignee: UNIV MINNESOTA (MINU)

Inventor: VINCE R

HUA M

Language: DE

Application: DE 68903226 A 19890119 (Local application)

EP 1989300510 A 19890119 (Application)

Priority: US 1988146252 A 19880120

US 1988278652 A 19881205

Related Publication: EP 325460 A (Based on OPI patent)

Original IPC: C07D-487/04(A) A61K-31/505(B)

Current IPC: C07D-487/04(A) A61K-31/505(B)

18/3,DE/51 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0003695463

WPI ACC NO: 1986-139364/

XRAM Acc No: C1986-059542

New ***ribofuranosylmethylimidazo*** (1,5-b) pyridazine(s) - exhibit
antiviral activity against RNA viruses

Patent Assignee: GLAXO GROUP LTD (GLAX)

Inventor: HOLMAN S; KNIGHT D J; SCOOPES D I C; SCOPES D I C; ***STORER R***

20 patents, 18 countries

Patent Family

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
GB 2167419	A	19860529	GB 198429694	A	19841123	198622 B
			GB 198528766	A	19851122	
DE 3541358	A	19860528	DE 3541358	A	19851122	198623 E
BE 903699	A	19860522	BE 29694	A	19851122	198624 E
FR 2573764	A	19860530	FR 198517238	A	19851121	198628 E
AU 198550299	A	19860529				198629 E

NL 198503225	A	19860616	NL 19853225	A	19851122	198629	E
SE 198505534	A	19860524				198629	E
NO 198504692	A	19860616				198631	E
DK 198505401	A	19860524				198635	E
LU 86178	A	19860604				198635	E
JP 61165385	A	19860726	JP 1985261614	A	19851122	198636	E
FI 198504619	A	19860524				198640	E
PT 81540	A	19861128				198703	E
ES 198704947	A	19870701	ES 1986556894	A	19860716	198730	E
ZA 198508964	A	19870522	ZA 19858964	A	19851122	198734	E
US 4690917	A	19870901	US 1985800667	A	19851122	198737	E
ES 198707254	A	19871001				198744	E
CN 1985109195	A	19861105				198747	E
GB 2167419	B	19880323	GB 198429694	A	19841123	198812	E
			GB 198528766	A	19851122		
IT 1181736	B	19870930				199038	E

Priority Applications (number, kind, date): GB 198429694 A 19841123; GB 198528766 A 19851122

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
BE 903699	A	FR				
SE 198505534	A	SV				
LU 86178	A	FR				
ZA 198508964	A	EN				

Germany

Publication Number DE 3541358 A (Update 198623 E)

Publication Date: 19860528

Imidazopyridazin-Derivate

Assignee: Glaxo Group Ltd., London, GB

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Language: DE

Application: DE 3541358 A 19851122 (Local application)

Priority: GB 198429694 A 19841123

GB 198528766 A 19851122

Original IPC: C07D-487/04 A61K-31/50

Current IPC: C07D-487/04(A) A61K-31/50

Claim:

- * 1. Verbindungen der Formel (01. Formel) worin R1, R3 und R4 jeweils unabhaengig ein Wasserstoffatom oder eine Schutzgruppe bedeuten; R2 ein Halogenatom oder eine Gruppe der Formel -NRaRb bedeutet (worin Ra und Rb, die gleich oder verschieden sein koennen, jeweils ein Wasserstoffatom oder eine Alkylgruppe bedeuten; oder Ra und Rb koennen verknuepft sein, um zusammen mit dem Stickstoffatom, an das sie gebunden sind, einen heterocyclischen Ring zu bilden, der gegebenenfalls ein weiteres Heteroatom enthaelt); und ihre physiologischen Aequivalente sowie ihre Salze mit Saeuren.

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